Texas Department of Transportation

2024 Texas Rail Plan

Chapter 1

The Role of Rail in Statewide Transportation

February 2025

Contents

Chapter 1: Introduction 2

Texas' Goals for the Multimodal Transportation System 3

Connecting Texas 2050 3

Mobility 5

Connectivity 5

Texas Delivers 2050: The Texas Freight Mobility Plan 6

The Role of Rail in Texas 9

Institutional Governance Structure of Texas Rail Programs 11

TxDOT 11

Texas Commuter Rail Agencies 14

Metropolitan Planning Organizations 14

State and Local Economic Development Agencies 15

Rural Rail Transportation Districts 16

State Authority for Rail Investment 17

Summary of Rail Services, Initiatives, and Studies 17

Passenger Rail Services and Initiatives 18

Freight Rail Services and Initiatives 19

Previous Texas Rail Studies 21

TxDOT Rail Vision 22

TxDOT Rail Vision 22

Rail Program Goals and Objectives 22

Figures

Figure 1-1 TxDOT Districts 13

Figure 1-2: Texas Metropolitan Planning Organizations 15

Chapter 1: Introduction

The Texas Department of Transportation (TxDOT) has developed this state Rail Plan to guide rail transportation planning activities and rail investment plans in Texas over the next 20 years.

The Texas Rail Plan is intended to meet the requirements established by the federal Passenger Rail Investment and Improvement Act of 2008 (PRIIA), as amended by the Fixing America's Surface Transportation Act of 2015 (FAST Act). The 2024 Texas Rail Plan provides an updated vision for rail transportation in the long-range horizon, to the year 2050, and strategies to achieve that vision.

The 2024 Texas Rail Plan is intended to express the state's vision for rail and identify opportunities for future improvement. The Texas Rail Plan was developed to be consistent with the previous 2019 Texas Rail Plan, 2023 Texas Freight Mobility Plan (Texas Delivers) 2050, the Statewide Long-Range Transportation Plan (Connecting Texas 2050), and the Texas Statewide Multimodal Transit Plan (SMTP) 2050.

The rail network in Texas is a critical component of a thriving economy – safely connecting industries, ports, and people without congesting public highways. This chapter outlines the statewide planning context and describes how public-private collaboration can benefit the predominantly privately-owned rail network. In addition, the chapter describes how rail supports established goals and objectives for a multimodal transportation system. The chapter

summarizes recent achievements and future plans for the rail system. Additional details are provided in subsequent chapters.

This 2024 Texas Rail Plan was developed in a manner consistent with and complete of elements required under Chapter 227, Title 49, United States Code, applicable sections of the Federal Railroad Administration's (FRA) Final Guidance on State Rail Plans published in 2013, and requirements of Title 6, Subtitle A, Chapter 201, Sections 6012-6013, Texas Transportation Code.

Texas' Goals for the Multimodal Transportation System

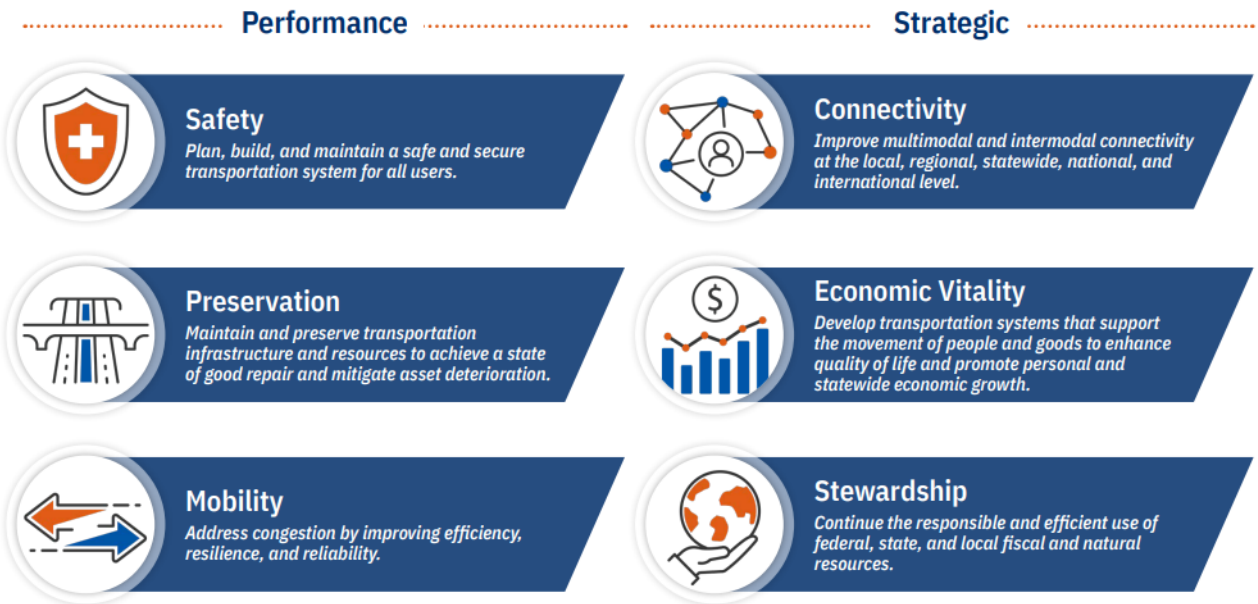
Texas' vision and goals for its multimodal transportation system are outlined in a number of recently published planning documents that are updated periodically. The plans and strategies outlined in this Texas Rail Plan expand upon the objectives included in documents such as the previous Texas Rail Plan (2019), Texas Delivers 2050, and Connecting Texas 2050.

During each long-range planning cycle, TxDOT revisits its core strategic elements – goals, objectives, and performance measures – that will steer policy direction, propel momentum toward desired outcomes, and link the TTP to TxDOT's strategic decisions and on-the-ground actions. These strategic elements are updated through a collaborative effort that starts with the agency's existing strategic vision and expands to reflect evolving priorities, national transportation priorities, and insights from TxDOT subject matter experts, partners, and Texans across the state. Lastly, the process includes the identification of a broad range of strategies that TxDOT is implementing now or will endeavor to in the future to ensure it achieves plan goals and objectives.

Connecting Texas 2050

Connecting Texas 2050 was adopted by the Texas Transportation Commission (Commission) in July of 2024 to serve as TxDOT's long-range, performance-based transportation plan. Connecting Texas 2050 addresses the statewide planning requirements under the current federal surface transportation act—the Infrastructure Investment and Jobs Act (IIJA) of 2021, and Title 43, Texas Administrative Code, Chapter 16. Connecting Texas 2050 outlines TxDOT's objectives to maintain a safe transportation system, address congestion, connect Texas communities, and become a best-in-class state agency.

Connecting Texas 2050 identifies six goals that set the foundation for meeting, supporting, and delivering TxDOT's mission and vision for transportation across the state. The goals identified for Connecting Texas 2050 are either performance or strategic goals. Performance goals identify specific tasks to ensure a safe, efficient, and resilient transportation system. Strategic goals guide organizational decision-making and provide overall direction to develop a well-connected and future-focused transportation system. The resulting goals are as follows:



Connecting Texas 2050 Goals and Objectives

Safety

Plan, build, and maintain a safe and secure transportation system for all users.

In 2023, an average of 11 people died daily and nearly 42 people per day were suspected to have sustained serious injuries in crashes on Texas roads, making improved safety across the state critically important. Safely moving people and goods is the top priority for TxDOT, which aims to reduce roadway hazards and resulting impacts, including crashes, serious injuries, and fatalities. The safety focus extends to railway, aviation, public transportation, active transportation, and maritime as well. TxDOT safety campaigns, such as the #EndTheStreakTX, target bicycle safety, pedestrian safety, work zone safety, drunk driving, and other focus areas.

Objectives

- Reduce the frequency of crashes and associated impacts for all modes.
- Eliminate fatalities and reduce serious injuries on the roadway system.
- Improve safety for all users of the transportation system, including VRUs.
- Strengthen the security of physical and digital transportation assets.
- Improve incident identification and response.

Preservation

Maintain and preserve transportation infrastructure and resources to achieve a state of good repair and mitigate asset deterioration.

The state's transportation system, which includes roads, bridges, sidewalks, transit fleet and facilities, rail, airports, ports and navigable waterways, pipelines, and other assets, plays an import role in moving people and goods statewide, nationally, and internationally. The preservation of infrastructure, including physical assets and the key functions of corridors, is crucial to maintaining a sustainable and functional transportation system.

Objectives

- Preserve the integrity and longevity of pavement and bridges to maintain a state of good repair.
- Invest in multimodal assets preservation, maintenance, and replacement.
- Optimize transportation system management and operations (TSMO).
- Maintain transportation assets in the most cost-effective manner.
- Enhance resiliency to natural and humanmade risks, both physical and digital.

Mobility

Address congestion by improving efficiency, resilience, and reliability.

The population of Texas is expected to grow by 39% by 2050, expanding by over 11 million people.[1] Ensuring mobility through 2050 is critical to providing an efficient, resilient, and reliable transportation system.

Objectives

- Mitigate congestion and enable reliable travel times.
- Ensure the efficient movement of goods and support a resilient supply chain.
- Increase system redundancy.
- Improve cross-border travel time reliability.

Connectivity

Improve multimodal and intermodal connectivity at the local, regional, statewide, national, and international level.

Improved connectivity will enhance safety and increase accessibility to essential services, such as jobs, schools, and healthcare. This particularly important for rural regions that have limited access to alternative transportation options such as public transportation or airports. Well-connected sidewalks, bike lanes, and trails will encourage the use of active transportation options, resulting in reduced traffic congestion and improved sustainability.

Objectives

- Increase statewide, regional, and local connections that are inclusive and accessible to all, including urban, rural, and border connections.
- Increase modal options to enhance alternative transportation.
- Improve freight network connectivity, including intermodal connections; connectivity between urban and rural areas, and global markets, and access to freight facilities and markets.
- Modernize infrastructure to support the implementation of emerging transportation technologies.

1 Texas Demographic Center (2022). Projections of the Total Population of Texas and Counties in Texas, 2020-2060 (0.5 Migration Scenario). Retrieved from: https://demographics.texas.gov/Resources/TPEPP/Projections/2022/2022statetotsex_mig100.csv.

Economic Vitality

Develop transportation systems that support the movement of people and goods to enhance quality of life and promote personal and statewide economic growth.

Texas has one of the largest populations and robust economies in the United States. Texas had the fastest Gross State Product (GSP) growth in the nation for the fourth quarter of 2022 with a 7% annual growth rate.[2] It is essential to continue to invest in a multimodal transportation system to remain competitive through 2050.

Objectives

- Expand and modernize transportation assets to spur economic growth.
- Increase access to and support opportunities for jobs, services, and activity centers.
- Promote workforce training to support a growing economy and emerging industries.
- Ensure the state's multimodal transportation system is supportive of all users, including tourism and leisure travel.
- Align with key economic initiatives of the state of Texas.

Stewardship

Continue the responsible and efficient use of federal, state, and local fiscal and natural resources.

Maintaining transportation infrastructure and building for future needs requires significant resources, including funding for construction, maintenance, repairs, and services. The 2024 Unified Transportation Program explains that some revenue streams are steady while other sources are more susceptible to fluctuations in the economy or state budget. Identifying and maintaining sustainable funding sources will support the delivery of more transportation across Texas through 2050 and beyond.

Objectives

- Identify and maintain sustainable funding.
- Avoid, minimize, and/or mitigate adverse and/or disproportional impacts to cultural, natural, and historic resources.
- Protect vulnerable populations from adverse health risks resulting from air pollution from transportation systems.
- Strategically allocate transportation spending across diverse modes, geographies, and social demographics.
- Deliver programs and projects efficiently and responsively.

Texas Delivers 2050: The Texas Freight Mobility Plan

Texas Delivers 2050: The Texas Freight Mobility Plan was adopted by the Texas Transportation Commission in March of 2023. Texas Delivers 2050 provides Texas with a blueprint for facilitating continued economic growth through a comprehensive, multimodal strategy for ensuring safe, efficient, resilient, and equitable movement of goods necessary to support the state's growing population and essential supply chains.

Goals and objectives for Texas Delivers 2050 were developed based on two key inputs:

2 Office of the Texas Governor (2024). Texas Leads Nation With Fastest Economic Expansion. Retrieved from: https://gov.texas.gov/news/post/texas-leads-nation-with-fastest-economic-expansion.

- Alignment with national freight goals and objectives, as well as TxDOT's vision, mission, and other statewide transportation plans.
- Stakeholder input from virtual statewide workshops, the Supply Chain Working Group (SCWG) and the Texas Freight Advisory Committee (TxFAC).

Texas Delivers 2050 Goals and Objectives

Safety

Improve the safety, efficiency and performance of the Texas Multimodal Freight Network (TMFN).

Objectives

- Reduce traffic fatalities and serious injuries.
- Reduce crashes.
- Improve safety at rail crossings.

Economic Competitiveness

Improve the performance of the TMFN to enhance the contribution of transportation infrastructure to the economic competitiveness, productivity and development throughout the state.

Objectives

- Support job growth and retention.
- Support manufacturing and research & development.
- Work with other state and local agencies to connect residents to freight employment opportunities.
- Identify critical freight infrastructure for the near-term and long-term.

Asset Preservation and Modernization

Maintain, preserve and modernize assets on the TMFN to support multimodal movement of goods and people.

Objectives

- Maintenance and improvement of bridges.
- Maintenance and improvement of pavement.
- Modernize freight infrastructure to ensure it operates efficiently and will meet the needs of future freight movements.
- Innovative technologies and operational strategies including intelligent transportation systems, which improve the safety and efficiency of freight movement.

Mobility and Reliability

Reduce congestion and improve system efficiency and performance on the TMFN.

Objectives

- Reduce congestion and delay.
- Improve travel time reliability.

- Improve cross-border travel time reliability.

Connectivity

Improve urban and rural system connectivity between all freight modes and all industry sectors to regional, statewide, national and international markets.

Objectives

- Increase the number of intermodal connections and improve existing connections/hubs.
- Improve first- and last-mile connections between freight modes and freight generators.
- Maintain and improve access to critical regional, statewide and national freight facilities.

Resiliency and Security

Develop and maintain a resilient and secure multimodal system that can withstand and respond to various sources of disruptions including extreme weather and stormwater runoff and flooding.

Objectives

- Maintain and improve multiple connections between freight hubs to ensure the system can operate efficiently.
- Strengthen and secure supply chains throughout Texas.

Equity

Encourage equitable distribution of the positive and negative impacts of freight movement across all Texans.

Objectives

- Minimize, mitigate or eliminate adverse impacts (e.g., emissions and wildlife habitat loss) from transportation projects on historically disadvantage communities.
- Work with historically disadvantaged communities to encourage and increase access to economic opportunities within the freight and logistics sectors.

Stewardship

Manage environmental and agency resources responsibly, and foster accountability and transparency in decision making.

Objectives

- Build strategic projects that add capacity to the system in the right locations at the right time.
- Be accountable to customers and taxpayers and incorporate their feedback into policies, programs, and projects.
- Strategically advance innovative transportation projects and policies to position Texas as a leader in energy, manufacturing, and research and development.
- Partner with freight providers to support the opportunities for alternative fuels.
- Communicate information and provide intelligent transportation systems (ITS) solutions that continue to improve safety and facilitate the movement of goods and people.

Sustainable Funding

Identify sustainable funding sources for all freight transportation modes.

Objectives

- For capacity adding projects, conduct rigorous analysis to ensure that projects that get built have a significant return on investment.
- Document and prioritize funding needs for freight transportation in the near-term and long-term.
- Educate the public and stakeholders about transportation in the near-term and long-term.
- Educate the public and stakeholders about transportation funding issues and the need for more sustainable funding sources.
- Partner with freight providers and operators to identify ways to jointly build and operate new infrastructure.
- Describe how the State will invest and match its National Highway Freight Program funds.
- Support policies that incentivize private sector investments.

The Role of Rail in Texas

Construction of Texas' rail network had a profound economic and social impact on the development of the state. Early settlers in Texas found a sparse and disjointed transportation system, primarily consisting of poor roads and rivers that were too shallow for dependable year-round transportation. The construction of railroads boosted the state's economy by improving how people and products moved across Texas.

The first railroad line was the Buffalo Bayou, Brazos & Colorado Railway, started in 1853, which operated between Harrisburg (Houston) and Stafford, Texas. Early Texas railroads were established primarily along the Gulf Coast. Based on this new transportation mode's potential, the Texas legislature and some localities provided incentives for rail construction in the form of land grants and loans.

By the start of the Civil War, there were nine railroad companies with 470 miles of track in Texas, primarily in the Houston area or serving sea and river ports. While construction paused during the Civil War, the 1870s saw significant new construction of rail track reaching a total of 2,440 miles by the end of 1879. This decade also marked the connection of the Texas network to the national rail network when the Missouri, Kansas & Texas Railway (MKT) reached Denison, Texas, from the north in 1872. Beginning in the 1880s, rail construction turned to the western part of the state, reaching a total of 4,000 miles by the end of the decade. During this time, several smaller Texas railroads were acquired by larger holding companies, such as the Atchison, Topeka & Santa Fe Railway (AT&SF) and the Missouri Pacific Railroad (MP) and gained broader context and importance as components of larger regional and national networks.

In 1891, the Texas Railroad Commission was created to address perceived railroad abuses and became the first rail planning agency in the state and one of the oldest in the country.

By 1911, more rail mileage was operated in Texas than in any other state. Rail mileage in Texas ultimately reached its peak at 17,078 miles in 1932. In the 1920s and 1930s, railroad consolidation continued, and by the mid-1930s, large Class I railroads AT&SF, MP, Chicago, Rock Island & Pacific Railroad (CRI&P), and Southern Pacific Railroad (SP) controlled more than 70 percent of the state's rail mileage.

The growth of railroads allowed commerce to move more reliably and efficiently and for passengers to travel safer, faster, and more inexpensively. Railroad passenger service was once vital to connect Texas' rural and urban areas, and to provide Texas with access to the rest of the nation. Starting in the 1920's, passenger rail service in Texas began to decline with the improvement of roadways and the affordability of automobiles. Following World War II, a marked shift in population from rural to urban areas added to the decline in service. Beginning in the 1960s, hundreds of miles of rail line were abandoned due to the poor financial condition of railroads and an increased dependence on highways. The National Railroad Passenger Corporation was established in 1970 to create and operate a national network (as Amtrak) cobbled together from several remaining passenger rail routes and services operated by Class I railroads, including several routes in Texas. A railroad bankruptcy (CRI&P), multiple rail line abandonments, several rail mergers (since 1980), and regulatory changes have had a major and long-lasting impact on the Texas railroad network.

The passage of the Staggers Rail Act of 1980, which deregulated the railroad industry, proved to be the beginning of a gradual improvement in the financial condition of the freight railroad industry, spurred largely by shedding poorly performing or duplicative rail lines and taking advantage of rate flexibility. The Texas rail network has been pared down since 1980. Currently the network consists of approximately 10,539 miles of track.[3]

Today's major Texas rail carriers have been created from the consolidation and mergers of several smaller predecessor Class I railroads that served the state for well over a century. These carriers have strong national and international networks and are financially sound.

The major Class I rail carriers operating in Texas include:

- BNSF Railway (BNSF) – headquartered in Fort Worth, Texas.
- Canadian Pacific Kansas City Ltd (CPKC) – headquartered in Calgary, Alberta, Canada (U.S. headquarters in Kansas City, Missouri).
- Union Pacific Railroad (UP) – headquartered in Omaha, Nebraska.

In addition, 50 Class III or short line railroads operate in Texas. A number of short line railroads have been established largely from rail lines spun off by the major rail carriers since 1980. These carriers continue to provide freight rail service at the local level.

Today, Texas' rail system plays an essential freight transportation role throughout the state, nationally, and internationally. Texas' location and position on principal national rail corridors provides rail access to every region of the U.S., as well as to Mexico and Canada. Texas also provides the majority of U.S. rail access points to Mexico, connecting this market to the Mid-Atlantic, Northeast, and Midwest regions of the country. Ports located on the Gulf Coast and on inland waterways also position Texas to be among the most important freight and intermodal transportation states in the nation. The combination of rail and trucking support a major intermodal freight transportation system with approximately 20 intermodal transfer facilities throughout the state. In addition, major freight intermodal logistics facilities have been developed in Fort Worth and at the Port of San Antonio where the interchange of freight between rail, truck, and air transportation modes have produced opportunities for logistics and distribution industries. Connections exist elsewhere between the rail network and major international airports in large cities and regional or local airports in small cities and rural areas in Texas. Multimodal connections also exist between the state's rail network and commuter or rail transit networks in large cities like Dallas, Fort Worth, and Austin – and,

3 Association of American Railroads, AAR State Rankings, 2021. Retrieved from: https://www.aar.org/wp-content/uploads/2023/03/AAR-State-Rankings-2021.pdf.

in some cases – commuter rail services operate on shared-use corridors owned by freight railroads or public agencies. These multimodal connections are described in Chapter 2 of the Texas Rail Plan.

Texas plays a leading role among states with regard to its overall rail system, their employees and retirees, and rail movements. According to the 2021 Association of American Railroads state rankings, Texas ranks first in the number of rail miles, freight rail employment, railroad retirement beneficiaries, railroad retirement payments, and total rail tons terminated; and third in originated rail tons and originated and terminated rail carloads.[4]

Although intercity rail passenger service provides only a small portion of intercity travel in Texas, public and private initiatives continue toward expanding conventional rail passenger services, developing privately financed high-speed rail corridors, and expanding locally or regionally managed commuter rail operations. These efforts will also establish connections to other forms of passenger transportation (air, intercity bus, local transit, etc.), thus facilitating seamless intercity and commuter trips.

Institutional Governance Structure of Texas Rail Programs

The Texas rail network is largely privately owned. Investments are primarily market-driven and there are no consistent public funding sources to improve the state rail network. A number of state and local public entities collaborate with the private sector to carry out, administer, or assist in rail operations planning in the state, as noted in this section.

TxDOT

TxDOT was established as the Texas Highway Department in 1917 by the Texas Legislature. TxDOT is currently an organization of approximately 12,000 staff with responsibilities in all modes of transportation. There are 25 district offices located throughout the state. TxDOT's divisions provide support to the districts and manage statewide processes including finance, statewide planning, specialized design expertise, environmental coordination, and rail activities as defined below.

TxDOT's administrative offices provide unified direction across the Department to carry out policies set out by the Commission and the Texas Legislature.

TxDOT Rail Division

TxDOT's Rail Division (RRD) was established in December 2009 in response to a renewed and growing interest in rail transportation statewide for both the movement of people and goods. RRD implements rail-related policies; performs infrastructure and operational analysis and rail project planning; monitors potential rail line abandonments; oversees rail-highway safety and rail inspections; and manages the South Orient Railroad.

RRD has specific responsibilities for the following rail functions in Texas:

- Performing infrastructure and operational analysis of both state- and privately-owned rail facilities to develop needs assessments as part of the project development process.
- Planning and environmental analysis for potential intercity and high-speed passenger rail corridors and services.

4 Ibid.

- Monitoring potential rail line abandonments in Texas, as well as coordinating the state's involvement and response to abandonment filings.
- Administering lease and operating agreements on state-owned facilities and managing construction contracts for state or federally funded projects on those facilities, as well as private facilities.
- Implementing rail improvements by entering into public-private partnership agreements to provide investments in freight rail relocation projects, rail facility improvements, rail line consolidations, or new passenger rail developments.
- Analyzing local, state, and national railroad/multimodal trends, policies, and legislation.
- Performing research to develop more efficient use of the state's rail network.
- Acting as the departmental liaison to railroad companies, intermodal interests, the Federal Railroad Administration (FRA), local governments, and the public with regard to rail planning and project development.
- Administering the state rail safety inspection program in conjunction with the FRA, including accident and complaint investigations.
- Improving highway-rail grade crossings to reduce accidents.

TxDOT Districts

Figure 1-1 identifies TxDOT's 25 districts.[5] District staff, led by the TxDOT District Engineer, are familiar with the unique demands and local needs in their areas of responsibility. All 254 of the state's counties are assigned to one of the districts shown below. Districts are further subdivided into area engineer offices and maintenance offices. Through this structure, TxDOT district offices offer local access to citizens who want to participate in the transportation development process. Public Information Offices serve as points of contact for citizens, news media, and various other entities.

5 Texas Department of Transportation, Districts and Counties Map, March 31, 2023. Retrieved from: https://ftp.txdot.gov/pub/txdot-info/tpp/maps/district-county.pdf.

Figure 1-1 TxDOT Districts

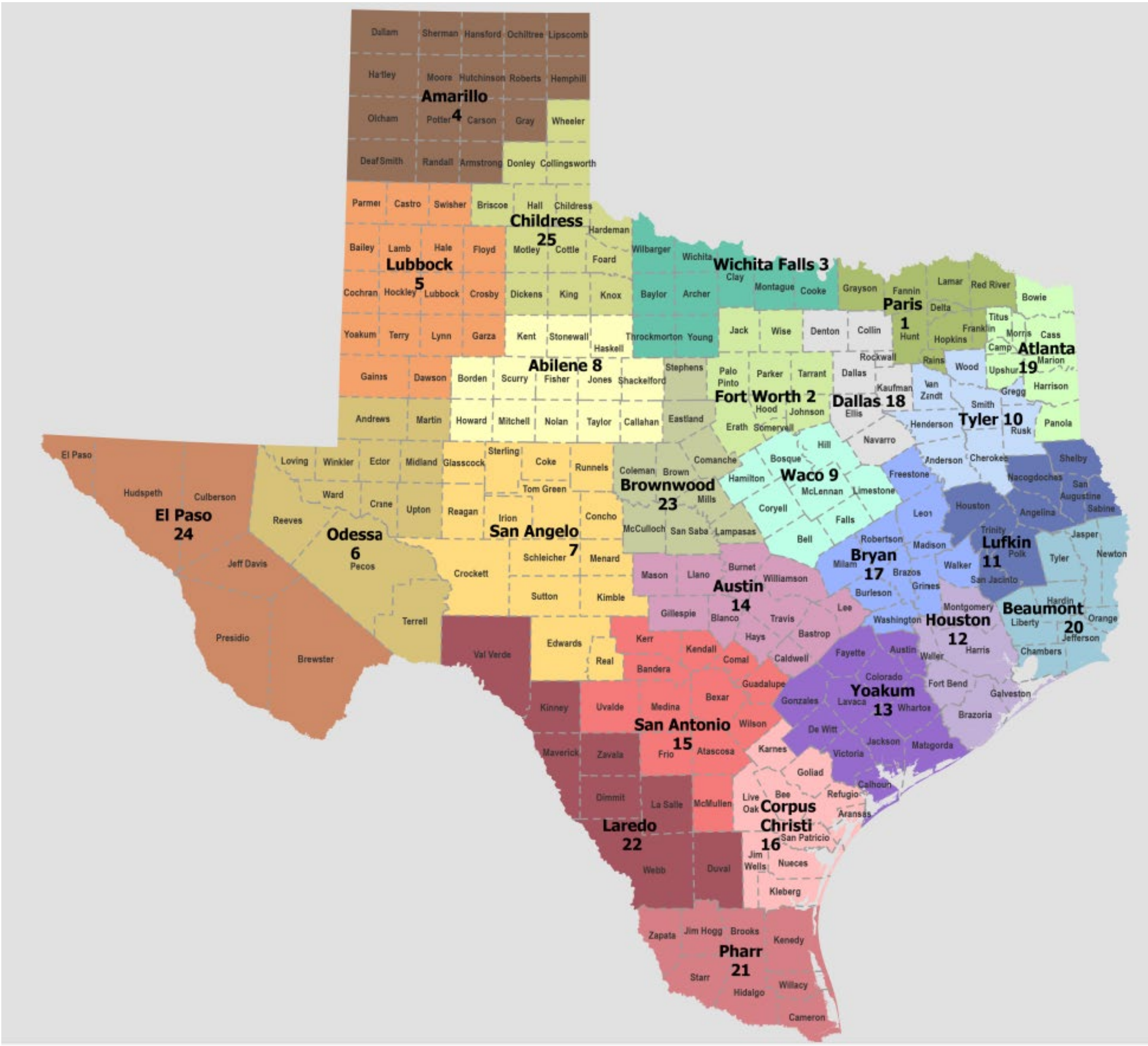


Image Source: TxDOT

Some issues pertaining to rail transportation may be analyzed at the district level in coordination with Metropolitan Planning Organizations (MPO) (see below) based upon a classification of the district as either a metropolitan, urban, or rural district. The larger metropolitan districts often have rail transit and intercity passenger rail issues not shared by urban or rural districts.

The primary functions of both TxDOT district personnel and local and regional government agencies involved with rail planning are to monitor local rail transportation needs and, when necessary, initiate rail development projects by either working directly with the railroad or contacting RRD staff for assistance and/or guidance. Additionally, local and regional governments serve as additional oversight for the implementation of improved safety measures for their highway-rail grade crossings. Through their efforts, recommended improvements to the local highway-rail grade crossings can be executed to enhance the quality of life in their area.

Texas Commuter Rail Agencies

Currently, four commuter rail passenger services operate in Texas. These services are distinguished from light rail systems in that they may operate over existing rail freight lines. Regional or city authorities own, operate, and maintain commuter and light rail systems.

TxDOT has no funding role, and regulatory oversight is limited to safety programs of some commuter services.

The Dallas-Fort Worth region is served by the Trinity Railway Express (TRE), a 34-mile route linking Dallas and Fort Worth and serving 10 stations. The TRE is a joint service of Dallas Area Rapid Transit (DART) and Trinity Metro (formerly the Fort Worth Transportation Authority).

The Capital Metropolitan Transportation Authority (Capital Metro) MetroRail Red Line connects Austin to its northern suburbs. The 32-mile line operates between downtown Austin and Leander and serves nine stations.

The Denton County Transportation Authority (DCTA) A-Train provides regional passenger rail service between Denton and Carrollton. The 21-mile route serves six stations, including a terminal transfer station in Carrollton that provides a connection to DART’s Green Line light rail service to Dallas.

Trinity Metro inaugurated TEXRail commuter service in January 2019, on a 27-mile route between downtown Fort Worth, Grapevine, and the Dallas Fort Worth International Airport. The line serves nine stations, with endpoint terminals at the Fort Worth Texas & Pacific Station and DFW International Airport Terminal B.

Metropolitan Planning Organizations

MPOs are federally mandated and funded transportation policy-making organizations comprised of local government and transportation officials. The formation of an MPO is required for any urbanized area with a population greater than 50,000.

MPOs are required to maintain and continually update a Metropolitan Transportation Plan (MTP) as well as a Transportation Improvement Program (TIP). The MTP is a long-range plan spanning more than 20 years that must identify how the MPO will manage and operate a multimodal transportation system, including rail, to meet the region’s economic, transportation, development, and sustainability goals. The TIP is a list of upcoming transportation projects covering a period of at least four years. As MPO planning activities have evolved to address the movement of freight as well as passengers, they have also included consideration of multimodal solutions, improved intermodal connections, and more specific rail and rail-related project solutions. MPOs work with area transportation stakeholders to understand and anticipate the area’s travel needs and to develop supplemental urban regional freight and passenger planning efforts that involve project initiatives to address rail capacity, service levels, and bottlenecks. Some rail projects identified in TxDOT Regional Freight Studies are included in MPO transportation improvement plans.

There are now a total of 23 MPOs in Texas.[6] These MPO regions are outlined in Figure 1-2.

6 Texas Department of Transportation, Metropolitan Planning Organizations. Retrieved from: https://www.txdot.gov/about/partnerships/metropolitan-planning-organizations.html.

Figure 1-2: Texas Metropolitan Planning Organizations

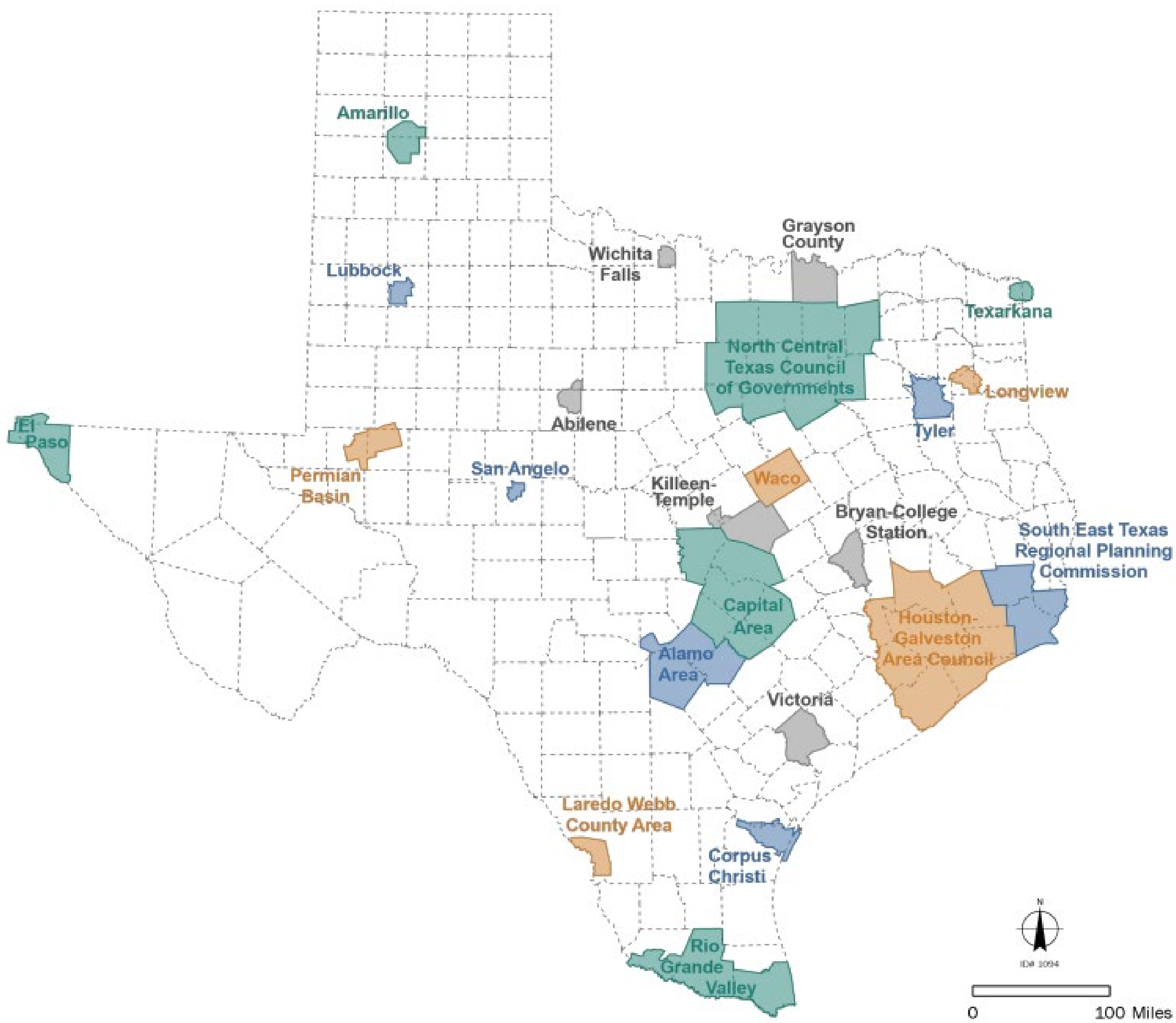


Image Source: TxDOT

State and Local Economic Development Agencies

Texas has a number of state and local public or private economic development agencies that recruit industries and businesses on the basis of their location, available labor force, capacity for growth, and access to rail and other transportation modes and assets.

The Texas Directory of Economic Development Organizations lists a number of entities around the state including economic development agencies and authorities, chambers of commerce, alliances, development councils, corporations, and associations at the regional, county, and local level of government. Many of these agencies offer incentives such as tax exemptions and credits and other means of assistance to attract business interests.

Although these agencies do not generally work directly with freight railroad operators, they do have a vested interest in the level of rail services and rail assistance programs available to supplement their incentives.

Rural Rail Transportation Districts

In response to concerns over the loss of rural rail service in the state, the Texas Legislature voted to allow the formation of Rural Rail Transportation Districts (RRTDs) in 1981. The only statutory funding source available to RRTDs, other than receiving donations of cash and real property, is to issue revenue bonds and the use of anticipation notes. This revenue assists RRTDs with preserving rail infrastructure and promoting economic development. Counties can establish RRTDs to acquire abandoned rail lines, construct new rail lines, or rehabilitate existing rail lines. They can also develop rail access to serve industrial parks, intermodal facilities, and transload facilities. There are currently 43 known RRTDs within Texas.

TxDOT and the Texas A&M Transportation Institute jointly completed the last full update report on RRTDs in June 2013. The June 2013 Rural Rail Transportation Districts (RRTDs) Update noted a total of 42 RRTDs at the time, of which only 13 were active districts. They included:

- Centex (Brown, Comanche, Erath, Hood, and Johnson counties)
- Ellis County
- Fannin County
- Galveston County
- La Entrada Al Pacifico (Ector and Midland counties)
- North Texas (Archer and Wichita counties)
- Northeast Texas (Collin, Franklin, Hopkins, Hunt, and Titus counties)
- Nueces County
- Pecos County
- Presidio County
- Rusk County
- San Patricio County
- Top of Texas (Hansford, Lipscomb, and Ochiltree counties)

Since the release of the 2013 report, only one additional RRTD has been formed, the Brazoria-Fort Bend Rail District (BFBRD), bringing the total number of known RRTDs in the state to 43.

As of 2013, a number of RRTDs, including Calhoun County, Gregg County, Gulf Link (Brazoria and Fort Bend counties), Liberty County, Matagorda County, McLennan County, Van Zandt County, and Webb County, were considered semi-active with boards in place to reactivate if viable.

The study also noted that "measuring progress of RRTDs toward outcomes related to their original motivation for forming is difficult based on the limited information available regarding RRTD activities." Changes in rail planning and activity patterns in specific regions highlight the need for improved coordination on a statewide level. Enhanced coordination strategies include identifying opportunities for interaction with other special districts (e.g., regional mobility authorities (RMAs) and MPOs, private railroads (especially Class I railroads), and TxDOT. The report concluded that TxDOT must determine its role for effectively coordinating the activities of RRTDs and incorporating these activities into statewide rail planning efforts.

State Authority for Rail Investment

Although a consistent source of public funding is only available for at-grade improvements, Title 5, Chapter 91 and Title 7 Chapter 201, Texas Transportation Code, provides TxDOT with authority to carry out rail planning, project development, and financing for both freight and passenger rail improvements in the state.

Chapter 91 provides TxDOT the authority to plan and make policies for the location, construction, maintenance, and operation of a rail facility or system in the state, as well as to acquire, finance, construct, maintain, and operate a passenger or freight rail facility or system. It also authorizes the department to accept grants or loans from federal or state agencies, as well as public or private entities. Public-private partnerships are an effective approach to leverage project development, in which a cooperative agreement between public agencies and private parties is used to plan for, finance, construct, and deliver projects.

Chapter 201 authorizes TxDOT to facilitate the development and interconnectivity of rail systems in the state, and to coordinate activities regarding the planning, construction, operation, and maintenance of a statewide passenger rail system. Under this authority, TxDOT shall coordinate with other entities involved with passenger rail systems, including governmental entities, private entities, and nonprofit corporations. TxDOT is also required to prepare and update a long-term plan for a statewide passenger rail system once every five years. Information contained in the plan must include:

- A description of existing and proposed passenger rail systems.
- Information regarding the status of passenger rail systems under construction.
- An analysis of potential interconnectivity difficulties.
- An analysis of short- and long-term effects of each proposed passenger rail system on state and local road connectivity, including the effect on future state and local road construction and road maintenance needs.
- Ridership projections for proposed passenger rail projects.
- Ridership statistics for existing passenger rail systems.

TxDOT is Texas’ State Rail Transportation Authority (SRTAA) and State Rail Plan Approval Authority (SRPAA) and is the agency responsible for development of a Texas Rail Plan at appropriate intervals established by the U.S. Secretary of Transportation and the Federal Railroad Administration (FRA). Furthermore, the State of Texas is in compliance with the requirements of 49 U.S.C. Section 22102, which stipulates eligibility requirements for long-established FRA rail freight grant assistance programs pertaining to state planning and administration.

Summary of Rail Services, Initiatives, and Studies

A detailed description of the Texas freight and passenger rail network, individual railroads, and rail facilities and port-rail interface and cross-border rail operations are provided in Chapter 2.

A detailed description of all Texas’ proposed passenger and freight rail improvements and planning efforts are provided in Chapter 3 and Chapter 4, respectively.

Passenger Rail Services and Initiatives

Intercity rail passenger service in Texas is provided by three Amtrak routes. The *Texas Eagle* and *Sunset Limited* are part of Amtrak's long-distance service network. The *Texas Eagle* operates daily service between Chicago, IL and San Antonio, TX. At San Antonio, the service connects to the *Sunset Limited* for continued service to Los Angeles, CA. Twelve stations within Texas are served by this train. The *Sunset Limited* provides tri-weekly service between New Orleans, LA and Los Angeles. Seven Texas stations are served by this train.

The *Heartland Flyer* is a daily intercity passenger train that operates between Oklahoma City, OK and Fort Worth, TX. The service is operated by Amtrak under contract to the states of Texas and Oklahoma. The schedule is timed to allow transfers to and from the *Texas Eagle* in each direction.

Commuter rail operations also serve the Dallas-Fort Worth and Austin areas, and additional commuter rail services are under consideration.

In 2023, multiple existing and potential future corridors in Texas were selected to be studied under the FRA Corridor Identification and Development Program (Corridor ID).[7]

These corridors include:

- New High-Speed Rail
  - Amtrak Texas High-Speed Rail Corridor.
    - The proposed corridor, sponsored by Amtrak, would connect Dallas and Houston, TX with a new, dedicated and grade-separated high-speed passenger rail service. The proposed corridor would provide new service on a new alignment with station stops in Dallas, Brazos Valley, and Houston.
  - Fort Worth to Houston High-Speed Rail Corridor.
    - The proposed corridor, sponsored by North Central Texas Council of Governments (NCTCOG), would connect Fort Worth, Dallas, and Houston, TX with a new high-speed passenger rail service. The proposed corridor would provide new service on a new alignment with station stops in Fort Worth, Arlington, Dallas, Brazos Valley, and Houston.
- New Conventional Rail
  - Houston to San Antonio Corridor.
    - The proposed corridor, sponsored by TxDOT, would connect Houston and San Antonio, TX with a new conventional intercity passenger rail service using the route of Amtrak's existing long-distance *Sunset Limited* service. The proposed corridor would have additional station stops in Rosenberg, Flatonia, and Seguin, TX.
  - I-20 Corridor Intercity Passenger Rail Service.
    - The proposed corridor, sponsored by the Southern Rail Commission, would connect Dallas, TX to Meridian, MS and would serve the following cities in Texas: Fort Worth, Mineola, Longview, and Marshall; the

7 Federal Railroad Administration, FY22 Corridor Identification and Development Program Selections. Retrieved from: https://railroads.dot.gov/sites/fra.dot.gov/files/2023-12/FY22%20CID%20Project%20Summaries-Map-r1.pdf.

following cities in Louisiana: Shreveport, Ruston, and Monroe; and the following cities in Mississippi: Vicksburg and Jackson. The proposed corridor would provide new service on an existing alignment. The proposed corridor to be studied has completed prior feasibility studies funded by FRA. Additionally, FRA anticipates including portions of the proposed corridor within the ongoing Amtrak Long-Distance Study.

  - Texas Triangle: Dallas-Fort Worth-Houston Intercity Passenger Rail Corridor.
    - The proposed corridor, sponsored by TxDOT, would connect Fort Worth, Dallas, and Houston, TX with a new conventional intercity passenger rail service over an existing alignment over which Amtrak discontinued service (between Dallas and Houston) in 1995. The proposed corridor would have additional station stops in Corsicana, Hearne, College Station, and Navasota, TX.

- Improvements to Existing Services
  - *Heartland Flyer* Extension.
    - The proposed corridor, sponsored by Kansas Department of Transportation, would connect the existing *Heartland Flyer* intercity passenger rail service between Fort Worth, TX and Oklahoma City, OK, with an extension north to Wichita and then Newton, KS. The proposed corridor would include new station stops in Edmond, Perry, and Ponca City, OK, and Arkansas City, Wichita, and Newton, KS.
  - Daily *Sunset Limited* Service.
    - The proposed corridor, sponsored by Amtrak, would provide improvements to the existing Amtrak long-distance *Sunset Limited* service between Los Angeles, CA and New Orleans, LA by increasing service frequency from thrice weekly to daily. Intermediate cities served include Houston, San Antonio, and El Paso, TX, and Tucson, AZ.

Freight Rail Services and Initiatives

Texas' rail system is comprised of more than 10,300 route miles. Including consideration of trackage rights where multiple railroads may operate over the same segments of track, the state's railroads operate over 14,600 miles of rail line within the state. These rail lines carry over 9.9 million rail carloads annually. In addition to rail activities between Texas and other U.S. states, Texas also receives over 750,000 rail cars across the Mexican border.

A total of 50 short line railroads and three Class I railroads operate within the state. The two largest carriers, UP and Fort Worth-based BNSF, operate over almost 11,400 miles, or 78 percent of the total miles. CPKC – formerly KCS, the third Class I railroad in the state, operates over 820 miles.

Short line railroads, comprised of local railroads or switching/terminal railroads, comprise the remaining almost 2,300 miles of rail line operated in the state.

In addition to rail carload traffic, the state's rail network moves nearly 30 million tons of intermodal rail freight to and from regional, state, nation, and global markets. In total, Texas is home to approximately 20 intermodal rail facilities.

There is also considerable port-rail interface in Texas. The state's rail network provides essential multimodal freight connections to seaports on the Gulf Coast (e.g., Ports of Houston, Galveston, and Corpus Christi) and the inland waterway system, and is a key component of the local, state, and global supply chain. Texas also hosts five of the

eight U.S. rail border crossings with Mexico and considerable capacity for international trade between the two nations. The Texas rail network and the Class I railroads serving the state have considerable connectivity to the rail network of Mexico through the principal land ports of entry (gateways) of Brownsville, Laredo, Eagle Pass, and El Paso, and a Class III railroad has access to a Mexico gateway at Presidio. Cross-border rail operations and the passage of freight between the U.S. (Texas) and Mexico faces several regulatory, institutional, security, financial, social, and legal challenges. Cross- border operations and related international trade also require specialized facilities, security and inspections practices (in cooperation with the U.S. Department of Homeland Security, U.S. Customs and Border Protection, and other federal and state agencies), and ample network capacity for staging and operating trains safely and efficiently within the vicinity of and through the international gateway.

The 2019 Texas Rail Plan focused its short-term (4 years) rail improvement financing plan on intercity passenger rail corridors and freight rail and grade crossing improvements within Texas. The goals for passenger improvements were to establish priority passenger rail corridors and to prepare Service Development Plans (SDP) and Service Level National Environmental Policy Act (NEPA) evaluations for the priority corridors. The short-term goals for the freight rail program were to eliminate freight rail bottlenecks on existing rail corridors; enhance freight rail network capacity, fluidity, and access; and improve public safety.

Although TxDOT does not have a funding program specifically dedicated to rail improvements outside of its grade crossing improvement programs, it has successfully applied for and been granted over $102 million from various federal discretionary programs. These funds were leveraged with local agency funding and significant project contributions from private railroads to develop the public- private partnerships necessary to finance major projects in recent years. In addition, Texas has a Railroad Grade Separation Program, funded under the Unified Transportation Program (UTP) by the Commission of approximately $25 million annually, to provide funding that supports grade separations of existing at-grade crossings and replacement of functionally deficient highway underpasses of railroads.

In 2024, TxDOT included a request for $25 million in state funding in its annual budget proposal to support short line railroad improvements throughout Texas.

Selected examples of major recent freight and passenger rail projects in Texas and their financing partnerships are discussed in the following sections. In addition to the projects identified below, Texas' Class I railroads make significant capital investments within the state annually to improve safety, capacity, velocity, efficiency, and state of good repair on their networks. These investments typically include improvements to track structure, bridges, network capacity (e.g., construction of double-track segments or the enhancement of existing sidings and construction of new sidings), yards and terminals, wayside signal systems, facilities, locomotives and equipment, and other assets.

Texas' Class III railroads also make considerable capital investments in their respective networks that improve safety, capacity, efficiency, and state of good repair. Additional details related to the capital investment by railroads in the state rail network are identified in Chapter 4.

Previous Texas Rail Studies

Presidio Freight and Trade Transportation Plan (2020)

TxDOT's Presidio Freight and Trade Transportation Plan (PFTTP)[8] focuses on providing multimodal freight transportation strategies for the Presidio/Ojinaga region. This region provides a critical connection for national and international freight movement and there is strong interest within the region in improving freight movement in West Texas and beyond.

The PFTTP study region is served by a mix of truck and rail freight modes, contains both rural and urban activity centers, and has a multimodal Port of Entry (POE) along the U.S.-Mexico border. The plan's study limits include Presidio, Pecos, Brewster, Jeff Davis, Reeves, Hudspeth, and Culberson Counties, in addition to the Permian Basin and the San Angelo region, and the US/Mexico border, including the city of Ojinaga and other areas in the state of Chihuahua, Mexico.

Statewide Crossing Study (2021)

The TxDOT Statewide Crossing Study (2021)[9] identified rail and roadway system alternatives to improve vehicular/rail interaction and freight rail performance at selected at-grade crossings throughout the State of Texas. TxDOT undertook this study to provide planning support to its partners in areas within the State where at-grade crossing studies have not been recently studied. This study includes the screening of all active, public highway-railroad at-grade crossings throughout the State to identify candidate grade separation projects and other railroad improvements that could potentially improve mobility and reduce vehicular delays. The study also included conceptual plan development, preparation of cost estimates, and initial benefit-cost analysis to support future planning of these projects and development of potential federal grant funding applications.

At the time of the study, there were 9,163 open, active, public highway-railroad at-grade crossings statewide listed in the FRA Crossing Inventory. As part of the screening, crossings in the following TxDOT Districts were removed from this study due to recently completed or on-going studies:

- Houston/Beaumont
- Dallas/Fort Worth
- Austin
- San Antonio

The results of this study identified 20 at-grade crossings as potential grade separation or other improvement projects.

8 Texas Department of Transportation, Presidio Freight & Trade Transportation Plan, September 2020. Retrieved from: https://ftp.txdot.gov/pub/txdot/move-texas-freight/resources/pfttp.pdf.

9 Texas Department of Transportation, Statewide Crossing Study, August 2021. Retrieved from: https://ftp.txdot.gov/pub/txdot-info/rail/statewide/summary-report.pdf.

Texas Freight Mobility Plan (2023)

The Texas Freight Mobility Plan (Texas Delivers 2050)[10] provides Texas with a blueprint for facilitating continued economic growth through a comprehensive, multimodal strategy for ensuring safe, efficient, resilient and equitable movement of goods necessary to support the state's growing population and essential supply chains.

Rail needs and challenges were discussed, including rail mobility and reliability (particularly at border crossings), rail safety, rail asset condition, and rail design.

TxDOT Rail Vision

TxDOT Rail Vision

As part of the previous 2019 Texas Rail Plan and this 2024 Texas Rail Plan, TxDOT held a series of workshops and invited rail stakeholders to solicit input into the creation of a vision for Texas freight and passenger rail for the future. These rail visions were consolidated into the most essential needs of and opportunities for the state with regard to its rail network, and in consideration that freight and passenger rail improvements in Texas are predominantly a function of private investment to meet market demands. The state lacks available funding and has a limited regulatory role at present.

The consolidated vision for this State Rail Plan is provided below:

> *The State of Texas will work with private rail providers to improve the efficiency and connectivity of the rail network to expand the State's economic competitiveness, improve safety, especially at highway-rail grade crossings, and reduce congestion on our roadways. The State supports a multimodal approach to expanding transportation opportunities that are supportive of all citizens of Texas.*

Rail Program Goals and Objectives

This 2024 Texas Rail Plan is intended to integrate with and expand upon *Connecting Texas 2050*, the Texas Long-Range Transportation Plan, and *Texas Delivers 2050,* the Texas Freight Mobility Plan (TFMP). The rail program vision encompasses goals and objectives consistent with both plans. These are:

- **Safety –** which includes the reduction of rail-related fatalities and serious injuries, especially regarding safety at highway-rail grade crossings, and the elimination of conflicts between transportation modes wherever possible.
- **Asset Preservation and Modernization –** which includes achieving a state of good repair of the rail network, especially those assets owned by TxDOT, and using innovative technologies to ensure safety and efficiency of passenger and freight movement.
- **Mobility and Reliability –** which is aimed reducing rail congestion and improving rail system efficiency, capacity, and performance, including both freight rail and passenger rail travel time reliability.
- **Multimodal Connectivity –** which is aimed at providing both freight and passenger choices by improving the rail system and increasing and providing intermodal and multimodal connections.

10 Texas Department of Transportation, Texas Freight Mobility Plan, March 2023. Retrieved from: https://ftp.txdot.gov/pub/txdot/move-texas-freight/resources/texas-delivers-2050.pdf.

- **Economic Vitality –** which involves selecting projects that strengthen and modernize Texas' position as a trade and logistics hub and support job growth, mobility, and opportunities to expand existing industries and attract new industries.

Texas' long-term rail vision is intended to integrate with other statewide transportation planning efforts, including *Connecting Texas 2050*, the state rail plans of neighboring states, and regional multi-state rail plans, as appropriate.

Texas Department of Transportation

2024 Texas Rail Plan

Chapter 2

Existing Texas Rail System: Description and Inventory

February 2025

Contents

Chapter 2: Introduction 6

Existing Rail System: Description and Inventory 6

Texas' Existing Rail Network 6

Major Freight and Passenger Terminals 85

Passenger Rail Service Objectives 102

Performance Review of Texas Intercity and Commuter Passenger Rail Operations 102

Public Financing for Rail Projects 120

Ongoing Projects for Safety and Security Improvements 124

Hazardous Materials Incidents in Texas 131

Rail Security 132

Economic Impact of Rail 134

Trends and Forecasts 135

Rail Service Needs and Opportunities 160

Passenger Rail Needs and Opportunities 167

Figures

Figure 2-1: Texas Existing Rail Network 8
Figure 2-2: Class I Railroads in Texas 11
Figure 2-3: Union Pacific Railroad Network 12
Figure 2-4: BNSF Railway Network 13
Figure 2-5: CPKC Network 14
Figure 2-6: Class III Railroads in Texas 16
Figure 2-7: DART Light Rail Passengers Transferring to a TRE Commuter Train in Dallas 30
Figure 2-8: Texas Intercity Passenger Rail Network Extent (1908-1970) 32
Figure 2-9: Current Texas Amtrak Routes 33
Figure 2-10: Heartland Flyer at Fort Worth Central Station 34
Figure 2-11: Sunset Limited at El Paso 35
Figure 2-12: Eastbound and Southbound Texas Eagle Trains at Fort Worth Central Station 38
Figure 2-13: North Texas Interurban Railways 1901–1948 41
Figure 2-14: Trinity Railway Express at EBJ Union Station in Dallas 44
Figure 2-15: Trinity Railway Express Rail Route and Stations 44
Figure 2-16: TRE Connections in Context of Regional Rail System 46
Figure 2-17: TRE Monthly Ridership (FY 2020 to FY 2023) 48

Figure 2-18: DCTA A-Train Route Map 51
Figure 2-19: DCTA's A-Train at Trinity Mills Station 52
Figure 2-20: Capital Metro's Commuter MetroRail Route and Station Map.....................................55
Figure 2-21: TEXRail Line..57
Figure 2-22: TEXRail Line in Relation to Other Rail Lines 58
Figure 2-23: TEXRail Monthly Ridership (FY 2020 to FY 2023)..59
Figure 2-24: DART Rail System Map (February 2024) 61
Figure 2-25: Houston METRORail Route Map...67
Figure 2-26: METRORail Expansion Plan 69
Figure 2-27: Dallas Streetcar Route Map 71
Figure 2-28: McKinney Avenue Trolley Route Map 72
Figure 2-29: Dallas Streetcar Lines and Extensions 74
Figure 2-30: El Paso Streetcar Route Map 75
Figure 2-31: Galveston Island Trolley Vehicle..76
Figure 2-32: Galveston Island Rail Trolley Route Map...77
Figure 2-33: Map of Texas State Railroad Route 78
Figure 2-34: Portion of 1956 Timetable Map of Giddings-Llano..79
Figure 2-35: Grapevine Vintage Railroad Route Map 80
Figure 2-36: STRACNET Lines in Texas 85
Figure 2-37: Alpine, Texas Station...87
Figure 2-38: Austin, Texas Station 88
Figure 2-39: Beaumont, Texas Station 88
Figure 2-40: Cleburne, Texas Station...89
Figure 2-41 Dallas, Texas 89
Figure 2-42: Del Rio, Texas Station 90
Figure 2-43: El Paso, Texas Station 90
Figure 2-44: Fort Worth, Texas Station 91
Figure 2-45: Gainesville, Texas Station 91
Figure 2-46: Houston, Texas Station..92
Figure 2-47: Longview, Texas Station 92
Figure 2-48: Marshall, Texas Station..93
Figure 2-49: McGregor, Texas 93
Figure 2-50: Mineola, Texas Station 94
Figure 2-51: San Antonio, Texas Station 94
Figure 2-52: San Marcos, Texas Station 95
Figure 2-53: Sanderson, Texas Station 95
Figure 2-54: Taylor, Texas Station 96
Figure 2-55: Temple Station 96
Figure 2-56: Train Accident Type/Locations/Causes in Texas (2014–2023)..................................128
Figure 2-57: Population Trends 136
Figure 2-58: Average Annual Population Growth Rate 137

Figure 2-59: Texas and U.S. Future Population Projections 137
Figure 2-60: Unemployment Rate 138
Figure 2-61: Employment Share by Industry in Texas 140
Figure 2-62: Personal Income per Capita 141
Figure 2-63: Rail Movements Share by Direction, 2022 143
Figure 2-64: Rail Movements Top Commodities by Tonnage and Carload, 2022 144
Figure 2-65: Rail Outbound Top Commodities by Tonnage and Carload, 2022 145
Figure 2-66: Rail Inbound Top Commodities by Tonnage and Carload, 2022 147
Figure 2-67: Rail Intrastate Top Commodities by Tonnage and Carload, 2022 148
Figure 2-68: Rail Through Top Commodities by Tonnage and Carload, 2022 149
Figure 2-69: Texas Passenger Highway Vehicle-Miles Traveled 152
Figure 2-70: Total Air Travel Passengers in Texas 153
Figure 2-71: Amtrak Train Ridership in Texas 153
Figure 2-72: Weekly Retail Gasoline and Diesel Prices, 1995 to 2022 154
Figure 2-73: Weekly Ultra-Low Diesel Fuel Prices, 1995 to 2022 155
Figure 2-74: Vehicle-Miles Traveled (2010 – 2022) 156
Figure 2-75: Texas Major Airports Monthly Enplanements 159
Figure 2-76: Texas Major Airports Monthly Cargo 159
Figure 2-77: BNSF MidCon Corridor 161
Figure 2-78: BNSF Transcon Corridor 162
Figure 2-79: Daily VMT Change, 2020—2050 169
Figure 2-80: Megaregions of the United States in 2050 170

Tables

Table 2-1: Texas Route Mileage of Class I Railroad Owners in Texas 10
Table 2-2: Passenger Rail Providers and Services in Texas 31
Table 2-3: Route Segments of the Heartland Flyer 35
Table 2-4: Route Segments of the Sunset Limited 36
Table 2-5: Route Segments of the Texas Eagle 37
Table 2-6: List of Connecting Thruway Bus Services 39
Table 2-7: TRE Annual Ridership FY 1997–2023 48
Table 2-8: DCTA A-Train Annual Ridership FY 2013–2022 53
Table 2-9: Capital MetroRail Red Line Annual Ridership FY 2013–2023 56
Table 2-10: TEXRail Annual Ridership FY 2019–2023 59
Table 2-11: History of DART LRT Development 62
Table 2-12: DART Light Rail Annual Ridership, FY 2019–2023 64
Table 2-13: DART 2045 Transit System Plan Rail-Related Initiatives 65
Table 2-14: Average Weekday, Saturday, and Sunday Ridership, 2019–2023 68
Table 2-15: Discontinuances/Abandonments in Texas Since 2018 83

Table 2-16: Detailed Amtrak Station Information 98
Table 2-17: Amtrak Riders on Routes Serving Texas, FY 2019–2023 102
Table 2-18: Passenger-Miles on Amtrak Routes Serving Texas, FY 2019–2023 103
Table 2-19: Passenger-Miles per Train-Mile on Amtrak Routes Serving Texas, FY 2019–2023 104
Table 2-20: Amtrak Riders in Texas, FY 2019–2023 104
Table 2-21: Amtrak Operating Revenue for Routes Serving Texas, FY 2019–2023 ($ millions) 105
Table 2-22: Amtrak Operating Expenses for Routes Serving Texas, FY 2019–2023 ($ millions) 106
Table 2-23: Revenue/Cost Ratio for Routes Serving Texas, FY 2019–2023 106
Table 2-24: Amtrak Expenditures of Goods and Services in Texas, FY 2019–2023 107
Table 2-25: Customer On-Time Performance, Routes Serving Texas, FY 2019–2023 108
Table 2-26: All-Stations On-Time Performance, Routes Serving Texas, FY 2019–2023 108
Table 2-27: Endpoint On-Time Performance, Routes Serving Texas, FY 2019–2023 109
Table 2-28: Amtrak Delay Categories 110
Table 2-29: Heartland Flyer Delays by Responsible Party, 2019–2023 111
Table 2-30: Texas Eagle and Sunset Limited Delays by Responsible Party, 4Q FY 2023 112
Table 2-31: Customer Satisfaction Index Scores for Amtrak Trains Serving Texas, Fourth Quarter 2023 113
Table 2-32: TRE Ridership and Operations Data, FY 2019–2023 114
Table 2-33: TRE Average Weekday Ridership by Station, FY 2019–2023 114
Table 2-34: TRE Financial Performance Data, FY 2020–2023 115
Table 2-35: TRE On-Time Performance, FY 2019–2023 115
Table 2-36: TRE Customer Satisfaction: Complaints per 100,000 Passengers, 2019–2023 115
Table 2-37: DCTA A-Train Ridership and Operations Data, FY 2018–2022 116
Table 2-38: DCTA A-Train Annual Boardings and Alightings by Station, FY 2018–2022 116
Table 2-39: DCTA A-Train Financial Data, FY 2018–2022 117
Table 2-40: DCTA A-Train Annual On-Time Performance, FY 2018–2022 117
Table 2-41: CapMetro Rail Red Line Ridership and Operations Data, FY 2018–2022 117
Table 2-42: CapMetro Rail Red Line Financial Data, FY 2018–2022 118
Table 2-43: TEXRail Ridership and Operations Data, FY 2019–2022 118
Table 2-44: TEXRail Average Daily Ridership by Station, FY 2019–2021 119
Table 2-45: TEXRail Financial Data, FY 2019–2022 119
Table 2-46: Total Accidents and Incidents in Texas (2014–2023) 127
Table 2-47: Total Accidents and Incidents in Texas (2014–2023) 128
Table 2-48: Total Accidents and Incidents in Texas (2014–2023) 128
Table 2-49: Type of Warning Devices at Texas Public At-Grade Crossings 129
Table 2-50: Accidents/Incidents Involving Railroad Equipment Reported in Texas (2014–2023) 130
Table 2-51: Rail Accidents Involving Hazardous Materials in Texas (2014–2023) 132
Table 2-52: Rail Economic Impacts in Texas 135
Table 2-53: Standard Transportation Commodity Codes (STCC) 142
Table 2-54: Bulk/Breakbulk Rail Movements by Direction, 2022 143
Table 2-55: Container Rail Movements by Direction, 2022 143

Table 2-56: Freight Forecast by Direction, 2022 and 2050 150
Table 2-57: Freight Forecast for Top Commodities, 2022 and 2050 151
Table 2-58: Lane-Miles Changes from 2018 to 2022 by Roadway Type 156
Table 2-59: Total Enplanements of Texas’ Commercial Airports, 2022-2023 157
Table 2-60: Total Cargo Weight Landed of Texas’ Commercial Airports, 2021-2022 158
Table 2-61: Texas Ports and Connecting Railroads 166

Chapter 2: Introduction

This chapter provides an overview and inventory of Texas' existing rail system as a baseline for planning and decision making in the state. Discussed in this chapter are three major aspects of the state's existing freight rail and passenger rail systems: a description of the services and physical characteristics of the state's railroad network as they are today (Texas' Existing Rail Network); rail service trends and forecasts (Trends and Forecasts); and needs and opportunities (Rail Service Needs and Opportunities).

Existing Rail System: Description and Inventory

Texas' Existing Rail Network

Railroads have served Texas continuously since the first tracks were laid in 1853.[1] Owing to the state's vast resources, strategic location, and railroad competition railroad trackage peaked in 1932 to 17,078 track miles within the state. Nearly 100 years later, Texas has approximately 10,539 miles of track, [2] primarily serving transcontinental

1http://www.rrc.state.tx.us/about-us/history/informal-history-toc/early-texas-railroads/.

2 Texas Department of Transportation 2023-2024 Educational Series, https://ftp.txdot.gov/pub/txdot-info/sla/education_series/rail.pdf.

routes and international border crossings. Railroads spurred development, most noticeably in Texas' largest cities, some of which became principal regional and national rail hubs. Today, Texas is served by three Class I freight railroads, 51 Class III freight railroads, three Amtrak intercity passenger routes, four commuter rail services, six light rail/streetcar transit operations, and five tourist or heritage railroads. Figure 2-1 identifies the routes of railroads in the context of the state's rail network. A more detailed 2023 State Railroad Map is available at https://www.txdot.gov/content/dam/docs/maps/texas-railroad-map.pdf.

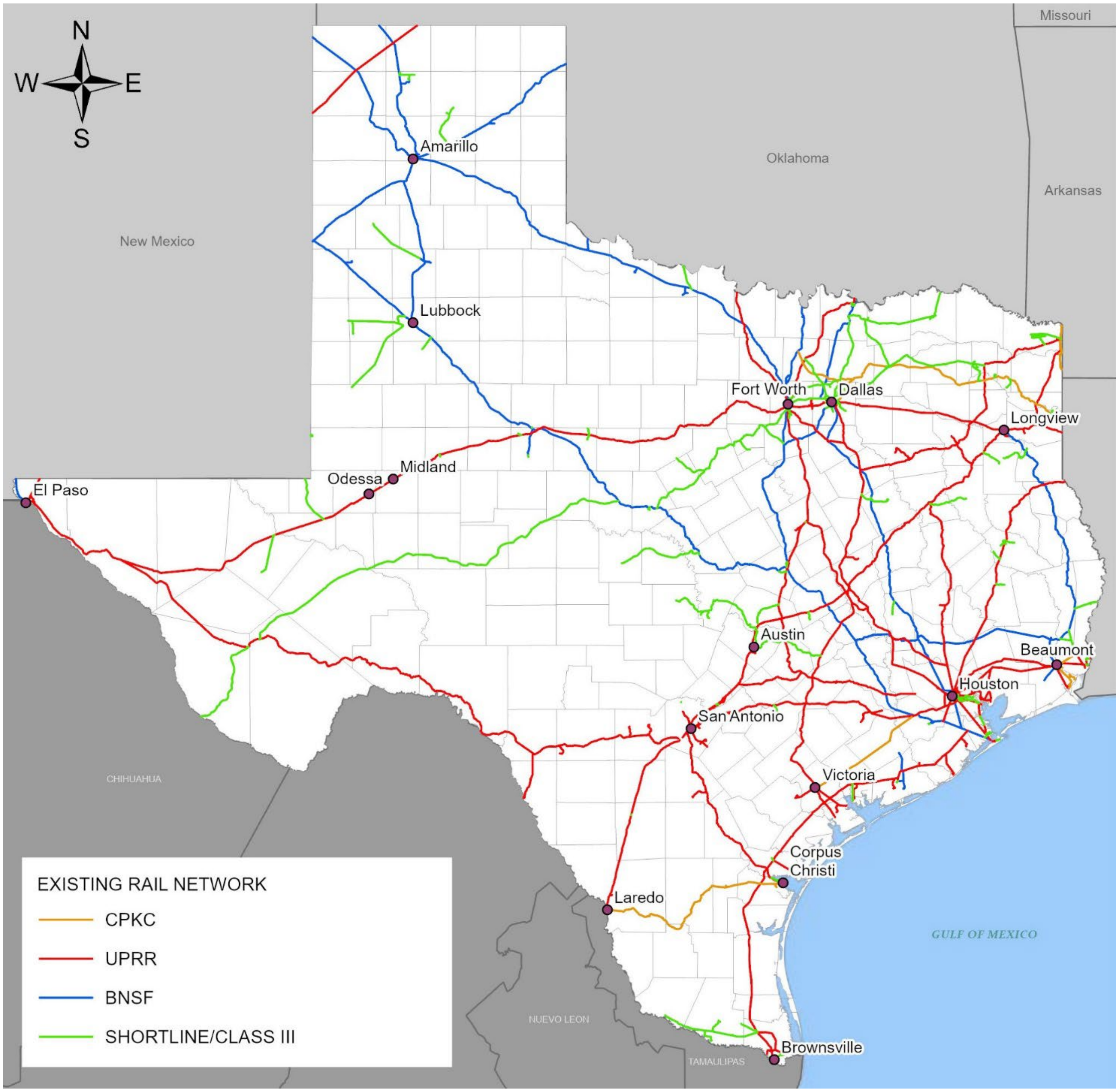
Operating freight railroads are divided into three categories: Class I railroads which are large, primarily long-haul national rail systems; Class II railroads which are medium-sized railroads that operate regional rail systems; and Class III railroads which are commonly referred to as short line and switching or terminal railroads, which operate at the local level.[3] Texas also has non-operating railroad owners, which own short segments of the Texas rail network and have agreements with Class III railroads to provide rail service.

The Texas passenger rail system is comprised of intercity passenger rail services operated by Amtrak, regional commuter rail and local rail transit services operated by public transit agencies, and privately owned tourist railroads.

Rail lines that have been abandoned or rail banked since 2007 are discussed later in Railroad Abandonments and Railbanked Lines.

3 See Federal Register, Volume 79, No. 111, June 10, 2014, p. 33257. The STB defines class of railroad based on revenue thresholds adjusted for inflation. For 2022, the most recent available, Class I carriers had revenues of $1,032,002,719 billion or more. Class II carriers have revenues ranging from $46.3 million to under $1,032,002,719 billion. Class III carriers have revenues under $46.3 million. All switching and terminal carriers regardless of revenues are Class III carriers. (See 49 CFR 1201.1-1).

Figure 2-1: Texas Existing Rail Network



Source: HDR and FRA

Freight Rail Network

Class I Railroads

Class I railroads are defined as those national railroads that typically operate over thousands of route miles, employ thousands of people, and have revenues and capital budgets in the billions of dollars collectively.[4] There are six Class I railroads that operate in the United States (U.S.) and Canada; three have transportation linkages to Mexico.

4 In the United States, the Surface Transportation Board defines a Class I railroad as "having annual carrier operating revenues of $1.032 billion or more" after adjusting for inflation using the Railroad Freight Price Index developed by the Bureau of Labor Statistics.

Class I railroads provide several distinct rail services and, over time, the types of rail services have evolved to meet shifting customer demands and changing economic realities. A summary of the major types of rail services is described below.

Intermodal Services - In the context of railroad services, “intermodal” generally refers to trains that carry shipping containers between rail terminals where the shipping containers then move by truck between the rail terminals and shipper locations and/or by vessel between ports. The containers are interchanged between the various modes of transportation at the terminals by lifting equipment.

Within the intermodal service categories, Class I railroads typically offer several tiers of service, with double stack containers being premium service, and containers or trailers on flatcars loaded at transload facilities being lower tier intermodal service.

Intermodal is the fastest growing rail service and competes most directly with trucking service, particularly long-haul trucking. Intermodal is usually the fastest service and is, to some extent, the most resource intensive. Railroads must commit to filling trainloads of intermodal boxes and adhere to strict schedules. In addition, the terminals are expensive to build, maintain, and operate.

Major intermodal facilities in Texas are located in El Paso, Dallas, Fort Worth, Houston, and Laredo with additional facilities located in smaller areas such as Donna, Laredo, and Wylie. In total Texas is home to approximately 20 intermodal rail facilities, concentrated mostly in the eastern portion of the state. BNSF Railway (BNSF)and Union Pacific Railroad (UP)operate intermodal facilities at the Port of Houston, which is the number one seaport by volume (tonnage) in the US.[5] The state’s two intermodal logistics facilities, Alliance and Port San Antonio, have direct access with BNSF and UP. Intermodal facilities for CPKC are located in the Dallas/Fort Worth and Houston area and Laredo.

Manifest or Carload Service - The traditional method of moving goods by rail delivers goods from a shipper to a receiver using a relatively small number of cars. Manifest trains are typically assembled from a variety of railcars including boxcars, flatcars, hoppers, gondolas, and other specialized cars travelling in mixed trains of different commodities and going to different origins/destinations.

Carload rail terminals usually contain numerous sidings for sorting the rail cars by destination. The service is relatively slow, since cars must be sorted between trains at classification yards.

Unit Train Services - Unit train service offered by Class I railroads refer to trains of typically over 100 cars that carry a single commodity between a single shipper and receiver. Unit train service is used for large volume commodities like coal, grain, automotive, and, increasingly, oil where the volume is sufficient to fill an entire train with the same commodity from one origin to one destination. Unit train service is much faster than manifest service. Demand for unit train service has grown in recent years in line with demand for the underlying commodities.

Texas is served by three Class I railroads: BNSF Railway (BNSF), Canadian Pacific Kansas City (CPKC), and Union Pacific Railroad (UP), totaling 8,374 track miles (not including trackage rights); see Table 2-1. A brief description of

5 Bureau of Transportation Statistics, 2024 Port Performance Freight Statistics, https://www.bts.gov/sites/bts.dot.gov/files/2024-01/2024_Port_Performance_Report_0.pdf.

each railroad appears in the following sections. Details of the railroads' physical plant and operations appear in Appendix A.

Table 2-1 identifies total miles of Class I freight railroads owned and operated in Texas (including lines leased, operated under contract, trackage rights, and haulage rights, as applicable), and the percentage of the total Texas rail network that each Class I freight railroad owns. Note that miles leased and/or operated under contract, miles operated under trackage rights, and miles operated under haulage rights are included in the total miles operated figures, allowing total miles operated to exceed total miles owned.

Table 2-1: Texas Route Mileage of Class I Railroad Owners in Texas

Railroad	Standard Carrier Alpha Code	Railroad Class	Total Miles Owned	Miles Owned and Operated	Miles Leased/ Operated Under Contract	Miles Operated Under Trackage Rights	Miles Operated Under Haulage Rights	Total Miles Operated
BNSF Railway[6]	BNSF	Class I	2,595	2,595	10	2,783		5,388
Canadian Pacific Kansas City[7]	CPKC	Class I	590	590		349		939
Union Pacific Railroad[8]	UP	Class I	5,189	5,189		1,309		6,498
Total (Class I)			8,374	8,374	10	4,441		12,825

Source: Surface Transportation Board; Class I Annual Reports R-1 (2023) Texas Class I Railroads

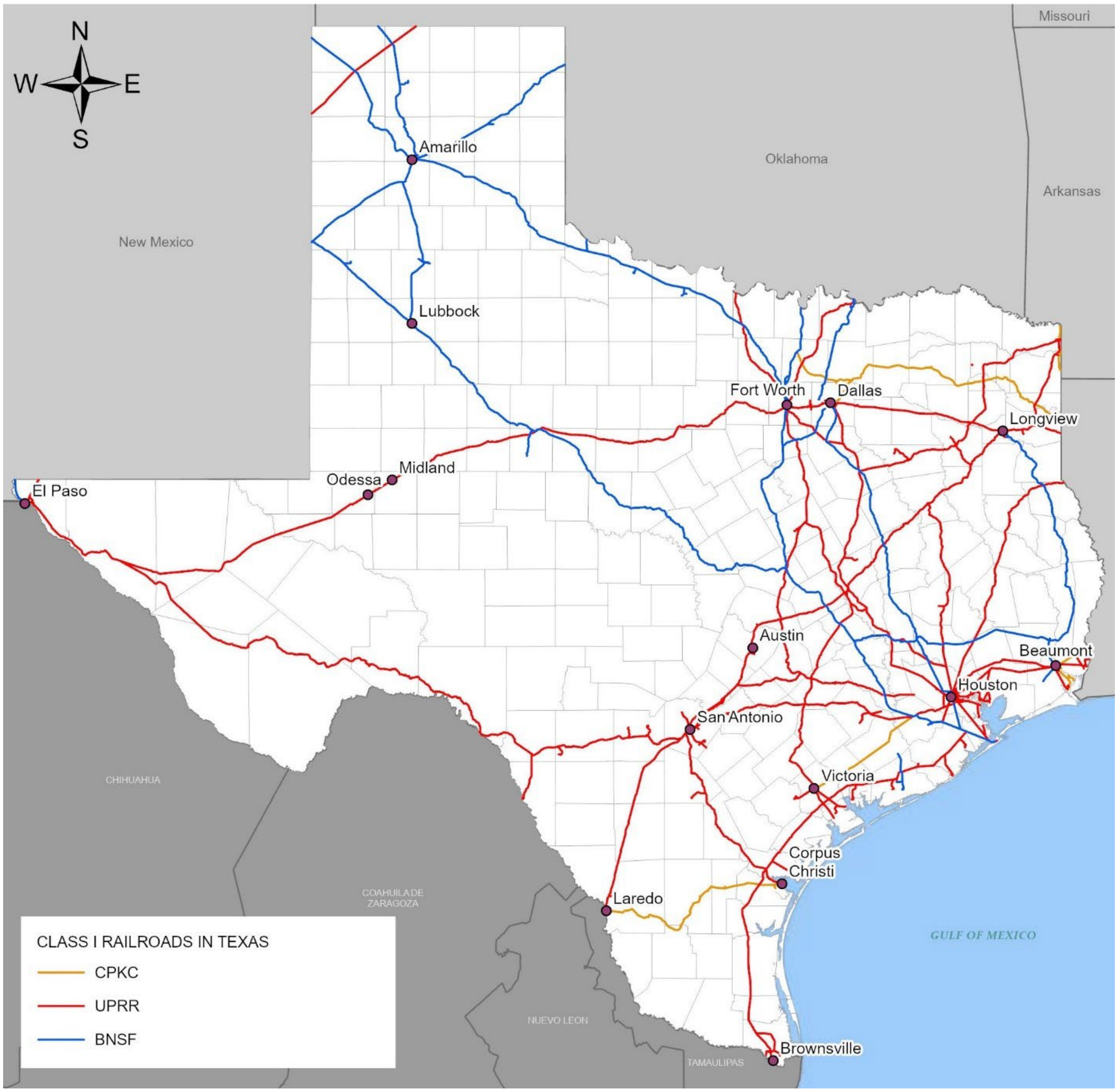
Figure 2-2 depicts the locations of UP, BNSF, and CPKC rail lines in the state. UP has the most coverage in Texas with 6,498 miles of track operated, followed by BNSF with 5,388 miles operated and CPKC with 939 miles operated within Texas.

6 https://www.bnsf.com/about-bnsf/financial-information/pdf/23R1.pdf.

7 https://www.stb.gov/wp-content/uploads/R1-KCS-2023.xlsx.

8 https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_up_r1_2023.pdf.

Figure 2-2: Class I Railroads in Texas



Source: HDR and FRA

Union Pacific Railroad (UP)

Within the UP system (shown in Figure 2-3), UP's high volume, major east-west lines connect California with the Gulf Coast and Memphis, Tennessee, and its north-south North American Free Trade Agreement (NAFTA) corridor connects Mexico to the northeast U.S. and Canada markets. Dallas, Fort Worth, Austin, and San Antonio are each on the heavily used rail corridor connecting Laredo with the Upper Midwest. Houston is a UP hub for six lines, linking the region with the Louisiana Gulf Coast, Midwest, West Coast, and Mexico. El Paso, San Antonio, Dallas, and Fort Worth are also on the main east-west corridors going across the southern tier of the U.S. connecting to ports at Los Angeles and Long Beach, California. The Sunset Route, which ultimately connects New Orleans, Louisiana to Los Angeles, California, crosses the southern portion of the state, connecting Houston, San Antonio, and El Paso.

Figure 2-3: Union Pacific Railroad Network

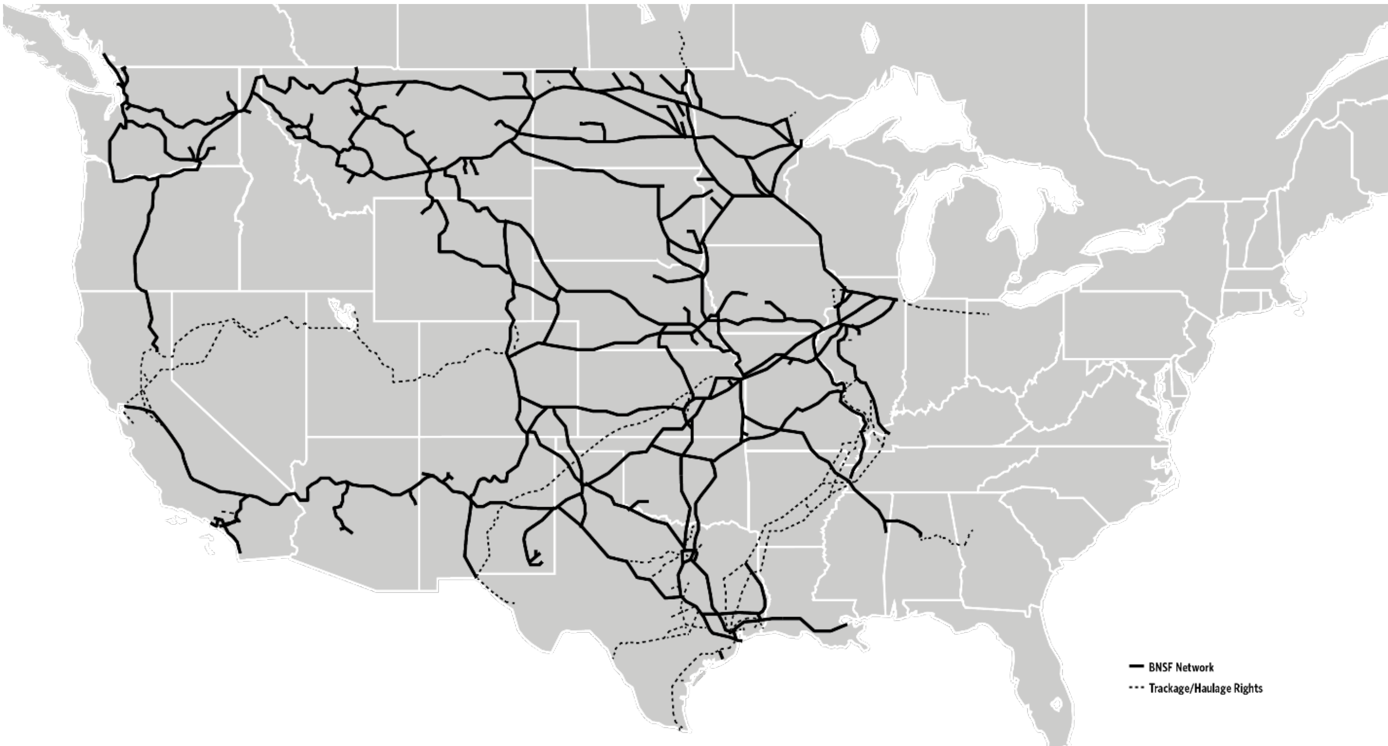
Source: 2024 Union Pacific Railroad

UP also maintains automobile distribution facilities in Texas. The UP Mesquite facility has both an intermodal and an automotive terminal that are two separate operations managed by different groups and different contractors. The Mesquite, Arlington, and Houston Westfield automotive terminals serve General Motors, Ford, Nissan, and Chrysler. UP also serves, but does not own or operate, the Gulf States Toyota facility across from the Westfield facility. In San Antonio, UP's Kirby Yard handles General Motors, Ford, and Nissan and south of San Antonio UP serves the Toyota manufacturing facility.

BNSF Railway (BNSF)

Within the BNSF system (shown in Figure 2-4), Fort Worth lies on a heavily-traveled line connecting coal from Wyoming's Powder River Basin with Central Texas and the Houston area. Also entering Fort Worth is a busy BNSF line originating in the grain-producing Plains states which then continues to Texas Gulf Coast ports. BNSF primarily serves the north and east portions of Texas and connects them to the more northern Gulf ports, including Houston, Galveston, and Beaumont. BNSF connects these ports to the metropolitan areas of Dallas and Fort Worth, and it is the only Class I railroad serving Lubbock and Amarillo. The BNSF's Transcontinental Line traverses the Texas Panhandle, carrying freight each way from Los Angeles, California to Chicago, Illinois.

Figure 2-4: BNSF Railway Network



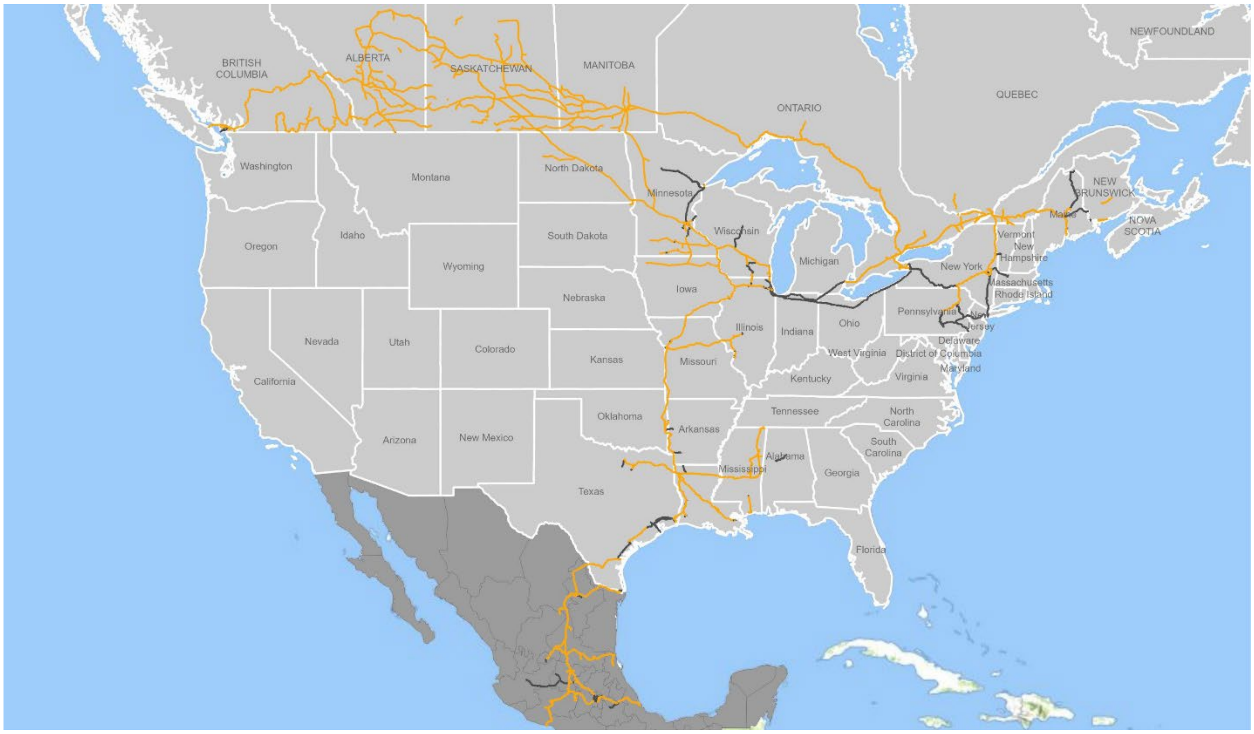
Source: 2024 BNSF Railway Company

BNSF currently has four automobile distribution facilities statewide. The Amarillo facility serves Ford and the Alliance facility near Fort Worth serves Honda, Hyundai, Mitsubishi, and Subaru. The Midlothian facility handles Nissan vehicles. Lastly, the Houston (Pearland) facility handles cars manufactured by Honda, Hyundai, Mazda, Mitsubishi, and Toyota.

Canadian Pacific Kansas City (CPKC)

In 2023, Canadian Pacific Railway (CP) and Kansas City Southern (KCS) merged to form CPKC. As a result of the merger, CPKC became the only railway connecting Canada, the U.S., and Mexico. In the CPKC system (shown on Figure 2-5), 939 miles of track are operated in the state (including the Tex Mex, which CPKC acquired in 2004), and is limited to other rail connections in Laredo, Corpus Christi, Houston, Dallas/Fort Worth, and Beaumont. In June 2009, CPKC added approximately 84.5 miles to its Texas rail network when it opened for operation a restored Southern Pacific Railroad (SP) line segment between Victoria and Rosenberg. CPKC provides connections between the International Port of Entry (POE) at Laredo to Corpus Christi as well as connecting Victoria to the Houston/Galveston area. An additional CPKC rail line connects the Dallas/Fort Worth area to Shreveport, Louisiana.

Figure 2-5: CPKC Network



Source: 2023 Canadian Pacific Kansas City Southern Rail Railway

Network inventory by railroad is presented in Appendix A.

Class II Railroads

As of 2021, the Association of American Railroads (AAR) classification listing does not include any Class II regional railroads in the state of Texas. Two railroads possess characteristics of Class II railroads, although they do not meet the previously mentioned financial criteria: Texas Pacifico Transportation LTD (TXPF), which operates on 391 miles of state-owned track in West Texas (the South Orient Rail Line (SORR)); and the Texas Northeastern Railroad (TNER), which operates on 101 miles of track in Northeast Texas.

Network inventory by railroad is presented in Appendix A.

Class III Railroads

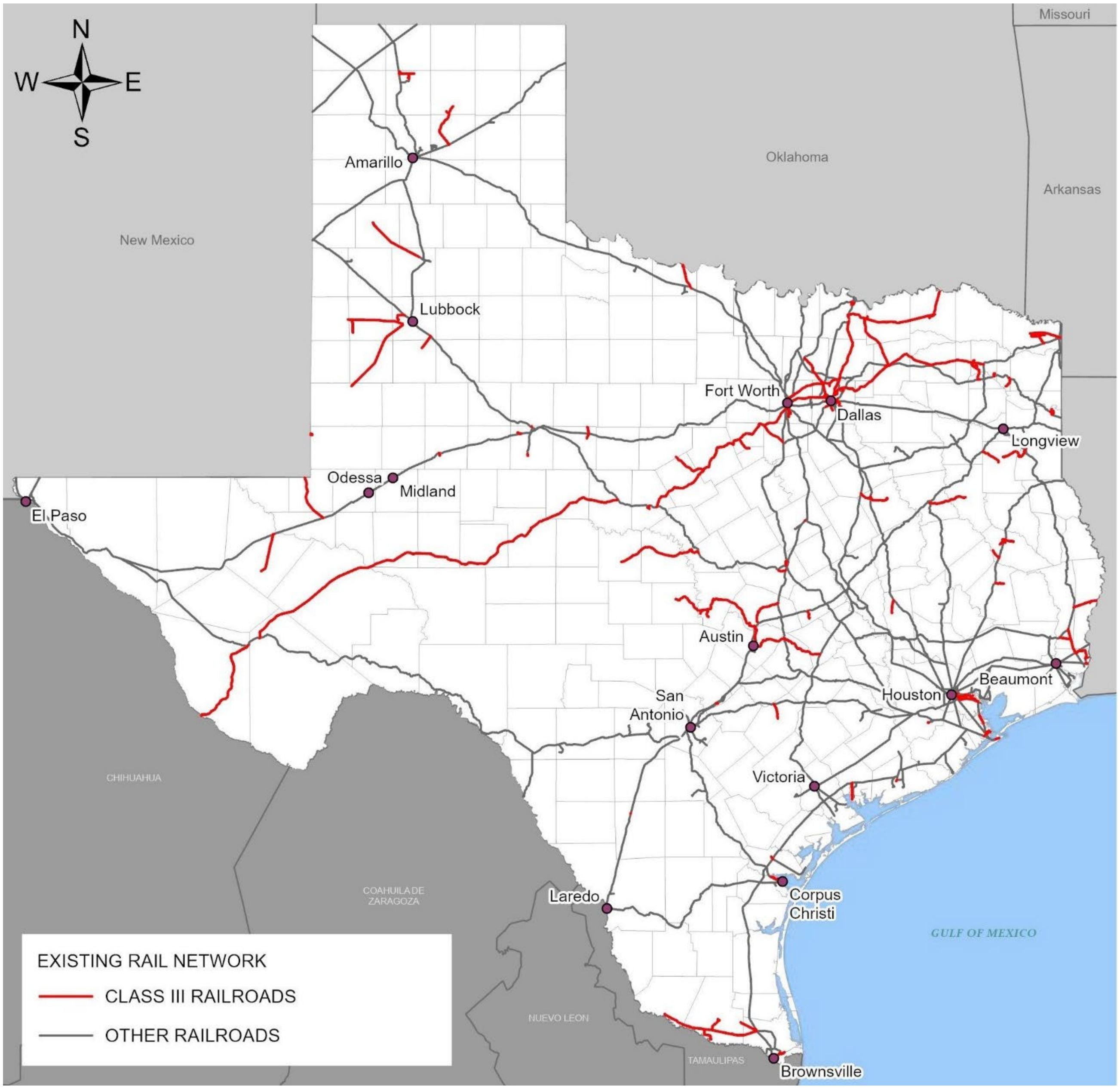
The majority of railroad operators in Texas are classified as Class III railroads, although their 2,031 miles of track, including trackage rights, make up only approximately 19% of the state's total trackage in 2023. Often referred to as "short lines," Class III railroads usually engage in specialized services and are typically geographically concentrated. One characteristic of short lines is that they may be privately owned to serve only a specific company or industry. For example, the Angelina & Neches River Railroad was founded by a paper mill and now connects shippers in the Lufkin area to UP rail lines. Short lines are also used to connect a group of local customers to Class I networks. Many short lines came into existence through the purchase of track formerly controlled by Class I railroads. For example, the Panhandle Northern Railroad operates on 31 miles of track acquired from the Atchison, Topeka and Santa Fe Railway Company (ATSF) following the sale of the line in 1993.

Some Texas ports, such as Houston, Corpus Christi, and Orange, are served by dedicated switching railroads (Port Terminal Railroad Association, Texas Coastal Bend Railroad, and the Orange Port Terminal Railway, respectively) that provide rail services in close proximity to the port areas. Switching railroads, such as the Dallas, Garland & Northeastern (DGNO), operate on Class I rail lines or on their own track and deliver or pick up goods (e.g., limestone, farm products, plastics, lumber, soybean oil, steel, paper, chemicals, and auto parts) within the region. The DGNO serves as a switching carrier for UP in the Dallas region and interchanges rail cars to provide cross-country rail services to area shippers.

Rail trackage on short line railroads may also be owned by one entity, either public or private, but operated by another through an operational lease. For example, there are large holding companies who own many short line railroads in Texas, such as Genesee & Wyoming, Watco, and OmniTRAX. These holding companies and their respective operations in Texas are described below.

Figure 2-6 identifies the networks of the state's Class III railroads described in this subsection.

Figure 2-6: Class III Railroads in Texas



Source: HDR and TxDOT

Watco Companies

Watco Companies, LLC (Watco), is a Pittsburg, Kansas based transportation company providing mechanical, transportation, and terminal and port services solutions for railroad customers throughout North America and Australia. Watco is the owner of Watco Transportation Services, LLC, one of the largest short line railroad holding companies in the U.S. with 60 short line railroads operating on more than 5,100 miles of track, as well as 32 industrial contract switching locations.

The short line railroads described below are owned by Watco in Texas.

Austin Western Railroad (AWRR)

The Austin Western Railroad (AWRR) operates 183.80 miles of track from Llano, Texas to Giddings, Texas. The line dates back to 1871 when the Houston and Texas Central Railroad built the Giddings to Austin line. The AWRR interchanges with the UP at McNeil and Elgin, Texas and moves nearly 60,000 carloads annually. Primarily shipping aggregate, other commodities hauled by the AWRR include plastic pellets, animal products, and recycling. Capital Metropolitan Transportation Authority began commuter service on portions of this line in March of 2010. For further information, visit: https://www.watco.com/service/rail/austin-western-railroad-awrr/.

Lubbock and Western Railway (LBWR)

Lubbock and Western Railway (LBWR) is a 147-mile railroad in two segments operating from Lubbock to Seagraves and Whiteface, Texas and from Plainview to Dimmit, Texas carrying frac sand, chemicals, fertilizer, grain, animal feed, and oil. For further information, visit: https://www.watco.com/service/rail/lubbock-and-western-railroad-lbwr/.

Pecos Valley Southern Railway (PVS)

The Pecos Valley Southern Railway (PVS)has been in continuous operation since 1910 and today operates about 23 miles of track between Saragosa and Pecos, Texas, where it has an interchange with UP. PVS's primary sources of traffic are aggregates and crude oil. For further information, visit:https://www.watco.com/service/rail/pecos-valley-southern-railway-pvs/.

San Antonio Central Railway (SAC)

The San Antonio Central Railroad (SAC) began operations September 1, 2012, and it operates within Port San Antonio's East Kelly Railport. Railport customers include warehousing, distribution, transloading, manufacturing, and trucking operations. The Railport is the only site inside San Antonio with available rail-served facilities and land sites with switching service off the BNSF and UP railroad lines. For further information, visit:https://www.watco.com/service/rail/san-antonio-central-railroad-sac/.

Texas & New Mexico Railway (TXN)

Located in the heart of the Permian Basin, the Texas & New Mexico Railway (TXN) operates 34 miles of track in Texas. The TXN interchanges with UP at Monahans, Texas and terminates at Lovington, New Mexico. The railroad primarily handles oilfield commodities such as drilling mud and hydrochloric acid, frac sand, pipe, and petroleum products including crude oil. In addition, TXN also ships iron and steel scrap. For further information, visit: https://www.watco.com/service/rail/texas-new-mexico-railway-txn/.

Texas Coastal Bend Railroad (TCBR)

The Texas Coastal Bend Railroad (TCBR) began operations August 3, 2022, serving the port of Corpus Christi. The railroad's network includes 63 miles of track, carrying grain and grain products, cement, coal, chemicals, steel, and plastics. The TCBR interchanges with BNSF, CPKC, and UP. For further information, visit: https://www.watco.com/service/rail/texas-coastal-bend-railroad-tcbr/.

Timber Rock Railroad (TIBR)

The Timber Rock Railroad (TIBR) has been in service since 1998. TIBR once operated 160 miles of trackage between Silsbee and Tenaha, Texas with a branch to Deridder, Louisiana. The railroad's network includes the approximately 42-mile line between Kirbyville, Texas and DeRidder, Louisiana (approximately 17 miles of which is located in Texas). Its traffic largely includes aggregates, lumber products, plastics, and fuel. For further information, visit: https://www.watco.com/service/rail/timber-rock-railroad-tibr/.

Ironhorse Resources, Inc.

The short line railroads described below are owned by Ironhorse Resources, Inc. in Texas.

Gardendale Railroad (GDR)

Gardendale Railroad (GDR) originally began operations in 1990. In 1995, GDR discontinued operations on the line and abandoned 49 miles of the 50-mile branch line. In 2010, GDR welcomed its first business in 15 years. GDR has developed and runs a large rail industrial park near Cotulla, Texas comprising of over 250 acres. GDR has significant additional acreage to support continued development and growth. GDR primarily provides logistics services to support drilling activities in the Eagle Ford Shale. GDR now has over 33 miles of track with the ability to serve any industry located with GDR. For further information, visit: https://ironhorseresources.com/rail-lines/gardendale/.

Rio Valley Switching Company (RVSC)

The Rio Valley Switching Company (RVSC) serves Harlingen (where it has an interchange with UP), Mission, Edinburg, and Santa Rosa, Texas. RVSC operates about 70 miles of track. Its traffic includes sand, drilling fluids, barite, oil, and pipe. For further information, visit: https://ironhorseresources.com/rail-lines/rio-valley-switching/.

Southern Switching Company (SSC)

The Southern Switching Company (SSC) is a terminal railroad that operates just over 8.5 miles of track and serving the Abilene area, where it has a connection with UP. SSC's traffic consists of grain, animal feed, fertilizers, petroleum products, oil drilling inputs, construction materials, windmill machinery, scrap, corn sweetener, and lumber. For further information, visit: https://ironhorseresources.com/rail-lines/southern-switching/.

OmniTRAX, Inc.(OmniTRAX)

OmniTRAX, Inc. (OmniTRAX) is a private railroad and transportation management company with interests in railroads, terminals, ports, and industrial real estate. OmniTRAX operates a network of 27 regional and short line railroads that cover 13 states in the U.S. and two provinces in Canada. The company's railroads interchange with BNSF, UP, Canadian National (CN), CSX Transportation (CSXT), Norfolk Southern (NS), and transports commodities within the agricultural, aggregate/industrial mineral, energy, food, crude oil, chemical, lumber, metal, petroleum, and plastic industries.

Through its affiliate, Quality Terminal Services, LLC, OmniTRAX also operates and manages terminal and intermodal facilities where services such as railcar switching, container handling, ramp/deramp and carrier management are provided.

The short line railroads described below are owned by OmniTRAX in Texas.

Brownsville & Rio Grande International Railroad (BRG)

The BRG operates 45 miles of railroad serving the Port of Brownsville. It currently has interchanges with three Class I railroads: UP, BNSF, and KCS de Mexico. BRG began operations in 1984 by acquiring former Texas and Pacific (MP) property handling a variety of products such as steel, agricultural products, food products, and general commodities. For further information, visit: https://omnitrax.com/brownsville-rio-grande/.

Panhandle Northern Railway (PNR)

The Panhandle Northern Railway (PNR) operates 31 miles of the former Atchinson, Topeka & Santa Fe Railroad between Panhandle and Borger, Texas. Its traffic currently consists of carbon black, liquid petroleum gas, chemicals, petroleum products, scrap metal, and fertilizer. For further information, visit: https://omnitrax.com/panhandle-northern-railroad/.

Tarantula Corporation

The Fort Worth & Western Railroad (FWWR) operates under its corporate parent company, Tarantula Corporation, based in Fort Worth, Texas.

Fort Worth & Western Railroad (FWWR)

The FWWR began in 1988 with the purchase of 6.25 miles of track from the former Burlington Northern Railroad through the west side of Fort Worth. Since then, FWWR had grown through the purchase and lease of track from Class I carriers, UP and BNSF. In June 2024, FWRR acquired the Texas Central Railroad (TEXC) from Birdsong Corp. Previously, FWWR had leased and operated the 26-mile line since December 1988.

Currently, the FWWR operates over 276 miles of track through eight counties in North Texas. FWWR has interchanges with both UP and BNSF in Fort Worth and BNSF in Brownwood, Texas. FWWR interchanges with CPKC through trackage rights with BNSF in Fort Worth and with TXPF at San Angelo Junction near Coleman, Texas. For further information, visit: https://www.fwwrNorth .net/.

Genesse & Wyoming (G&W)

G&W owns or leases 116 freight railroads worldwide with 111 short lines with more than 13,000 miles within 43 U.S. states. In Texas, G&W operates four freight railroad switching operations which interchange between the Class I railroads and two terminal railroads operating within an existing port authority.

Dallas, Garland & Northeastern Railroad (DGNO)

The Dallas, Garland & Northeastern Railroad (DGNO) is a complex switching terminal that started operations in 1992 and is made up of a conglomeration of spurs and industrial leads. DGNO operates 161 miles of track in the Dallas and North Dallas areas using a combination of owned and leased lines as well as trackage rights. The DGNO provides extensive switching service and line haul extensions between their interchange locations with BNSF, UP, and CPKC. For further information, visit: https://www.gwrr.com/dgno/.

Galveston Railroad (GVSR)

Acquired in 2005, the Galveston Railroad (GVSR) is a 39-mile short line freight railroad serving the Galveston Port Authority and interchanging with BNSF and UP. For further information, visit: https://www.gwrr.com/gvsr/.

Kiamichi Railroad (KRR)

The Kiamichi Railroad (KRR) is located in Texas, Oklahoma, and Arkansas for a total of 264 miles of track (30 miles in Texas) shipping coal, lumber, paper, chemicals, cement, pulpwood, feed and food products between five interchange locations. The KRR interchanges with BNSF, CPKC, and UP. For further information, visit: https://www.gwrr.com/krr/.

Point Comfort & Northern Railway (PCN)

The PCN was incorporated in 1948 and interchanges with UP while serving the Port of Port Lavaca – Point Comfort. The PCN provides unit train services, interplant switching, car washing, weighing and inspection and traffic coordination. PCN operates 19 miles of track, and in 2019, their primary customer, the ALCOA Point Comfort Refinery, shutdown operations. For further information, please visit the link here: https://www.gwrr.com/pcn/.

Texas Northeastern Railroad (TNER)

The Texas Northeastern Railroad (TNER) operates in Texas west of Bonham through Bells to Sherman and east from New Boston to Texarkana. The TNER interchanges with the BNSF, DGNO and UP. Major commodities for the TNER are coal, military equipment, wheat, and polyethylene with their largest customer being the Red River Army Depot located just west of Texarkana. For further information, visit: https://www.gwrr.com/tner/.

TNW Corporation

For more than three decades, TNW Corporation (TNW) has been a leader in the short line railroad industry and is the parent company of three short line railroads in Texas.

Texas, Gonzales & Northern Railway (TXGN)

The Texas, Gonzales & Northern Railway (TXGN) began operations in 1992 and operates on former Southern Pacific Railroad (SP) trackage between Harwood and Gonzales, Texas on a system that is approximately 79 miles in length. In 2023, TXGN opened a new interchange with UP in Gonzales. For further information, visit: https://www.tnwcorporation.com/txgn-railway.

Texas Rock Crusher Railway (TXR)

The Texas Rock Crusher Railway (TXR) serves the Brownwood area on over 6 miles of former Santa Fe industrial trackage. TXR began operations in 1998 and serves the Camp Bowie Industrial Area. Services include rail transport, storage, and operations and logistics support. For further information, visit: https://www.tnwcorporation.com/txr-railway.

Texas North Western Railway (TXNW)

The Texas North Western Railway (TXNW) dates back to 1982 when it took over trackage originally owned by the Chicago, Rock Island & Pacific (Rock Island). TXNW's operates the largest privately owned railcar storage facility with 151 miles of storage and loop track near Sunray, Texas. Services include transloading, warehousing, railcar and product storage, and switching. For further information, visit: https://www.tnwcorporation.com/txnw-railway.

Patriot Rail

Patriot Rail operates over 30 regional short line railroads with more than 1,200 total rail miles across the U.S. In Texas, Patriot Rail owns one short line railroad.

Temple & Central Texas Railway (TC)

Temple & Central Texas Railway (TC) operates over 10 miles of rail line in the Central Pointe Rail Park located in Temple, Texas. The City of Temple awarded TC an exclusive long-term license agreement to provide rail switching and other rail- related services to customers at Central Pointe Rail Park. TC interchanges traffic with BNSF at Temple. For further information, visit: https://patriotrail.com/rail/temple-central-texas-railway-tc/.

Jaguar Transport Holdings (Jaguar)

Established in 2018, Jaguar Transport Holdings provides trucking, warehousing, rail, and transloading services. Jaguar operates eight short line railroads in the U.S., of which one is located in Texas.

Texas & Eastern Railroad (TSR)

Acquired by Jaguar Transport Holdings in 2020, the Texas & Eastern Railroad (TSR) operates freight service from Palestine to Rusk, Texas on leased track from the Texas State Railroad Authority. TSR interchanges with UP at Palestine. Traffic consists of chemicals, construction aggregates, and industrial products. For further information, visit: https://jag-transport.com/texas-and-eastern-railroad/.

Port Terminal Railroad Association (PTRA)

The Port Terminal Railroad Association (PTRA) is an association of the Port of Houston Authority and the three Class I railroads operating within Texas – UP, BNSF, and CPKC. The PTRA infrastructure consists of a total yard capacity of 5,000 railcars, with a daily spot/pull rate of 2,500 industrial cars. The PTRA straddles both sides of the Houston Ship Channel and maintains 185 miles of track with 20 bridges while serving 226 local customers from six serving yards.

- PTRA North Yard – six receiving/departure tracks with a capacity of 415 railcars and 46 classification tracks with a capacity of 1,200 railcars – Direct interchange with BNSF, UP, and CPKC.
- PTRA Storage Yard – 19 classification tracks with a capacity of 800 railcars – Direct interchange with UP.
- PTRA American Yard – 10 classification tracks with a capacity of 400 railcars – Direct interchange with industrial customers.
- PTRA Penn City Yard – three tracks with a capacity of 120 railcars – Direct interchange with industrial customers.

- PTRA Manchester Yard – 26 classification tracks with a capacity of 800 railcars – Direct interchange with UP and BNSF.
- PTRA Pasadena Yard – 15 classification tracks with a capacity of 700 railcars – Direct interchange with UP and BNSF.

For further information, visit: https://www.ptra.com/.

Other Class III Railroads

Other Class III railroads operate in Texas that are not associated with larger holding companies and are described as follows:

Alamo Gulf Coat Railroad (AGCR)

The Alamo Gulf Coast Railroad (AGCR) is owned by Martin Marietta Materials and consists of a line that is just 3.5 miles in length near the town of Beckman, Texas. AGCR primarily transports aggregates and began operations in 1996 over former SP property. For further information, visit: https://www.martinmarietta.com/locations/southwest/central-texas-district/beckmann-quarry.

Alamo North Texas Railroad (ANTR)

This short line is a switching and terminal railroad, and operates approximately 0 miles of track in Texas. The Alamo Gulf Coast Railroad Company is owned by Martin Marietta Materials Southwest, Inc. (99.5%) and other individuals (0.5%).

Angelina & Neches River Railroad (ANR)

The Angelina & Neches River Railroad (ANR) is a historic short line that traces its roots back to 1900 where it served the timber industry. ANR currently operates 12 miles of main line trackage and 28 miles total radiating away from Lufkin, Texas. This includes the West Lufkin Branch, Clawson Branch, and its main line heading east. ANR's traffic currently includes newsprint, ground-wood paper, lumber, chemicals, scrap metal, sugar, corn syrup, grocery products, clay, aggregates, and industrial products. For further information, visit: https://www.anrrr.com/.

Big Spring Rail System (BSR)

The Big Spring Rail System (BSR) maintains and operates 3.3 miles of rail line in Howard County, Texas, over trackage owned by the City of Big Spring, Texas. Big Spring Rail is headquartered in Glen Mills, Pennsylvania and is leasing the line from the City. BSR interchanges traffic with UP just west of its Big Spring Yard and extends southward from the UP Toyah Subdivision. For further information, visit: https://bigspringrailsystem.com/home.

Blacklands Railroad (BLR)

Recently acquired by Public Werks, Inc., the Blacklands Railroad (BLR) first began service in 1999 and currently operates eight miles of former Cotton Belt property between Mt. Pleasant and Winfield, Texas. BLR handles several commodities and also offers transload services. For further information, visit: https://www.blacklandsrailroad.com/blacklands-railroad.

Border Pacific Railroad (BOP)

The Border Pacific Railroad (BOP) began service in 1984 and operates around 32 miles of former Missouri Pacific Railroad (MP) trackage between Mission and Rio Grande City, Texas. Its traffic currently includes sand and crushed gravel aggregate. For further information, visit: https://borderpacificrailroad.com/.

Georgetown Railroad (GRR)

The original Georgetown Railroad (GRR) dates back to 1878, running 10 miles between Georgetown and Round Rock, Texas. It was later acquired by the International-Great Northern Railroad, which went on to become part of MP. In 1959, eight miles of the MP's old Georgetown Branch was sold to a new short line the Georgetown Railroad Company. Today the operation owns about 23 miles of track serving communities such as Kerr, Granger, Belton, and Smith, Texas. GRR interchanges with UP in Granger and both UP and BNSF in Kerr and hauls around 7,000 carloads annually. GRR traffic includes crushed stone, lumber, and building products. For further information, visit: http://www.intra-focus.com/GTRR/EFE777FD-65BE-CC3C-1EB69C72FC428CE4.htm.

Gulf Coast Switching, LLC (GCS)

Gulf Coast Switching Company, LLC (GCS) is an affiliate of the short line holding Anacostia Rail Holdings and provides contract rail switching services and is owned by Anacostia Rail Holdings. On October 1, 2008, the company began switching and track maintenance services for UP at Robinson Yard at Dayton, Texas and in October 2018 began switching and track maintenance services for UP at Angleton Yard at Angleton, Texas. For further information, visit: https://www.anacostia.com/.

Henderson Overton Branch (HOB)

The Henderson Overton Branch (HOB) operates 14 miles from Overton to Henderson, Texas. HOB is owned by Blacklands Railroad. HOB serves as the rail carrier for the Rusk County Rural Rail Transportation District, which owns all rights to the corridor. The primary commodities are lumber, asphalt, aggregate, and chemicals. For further information, visit: https://www.blacklandsrailroad.com/henderson-overton-branch.

Hondo Railway (HRR)

The Hondo Railway (HRR) operates about five miles of track near San Antonio, Texas and has been in service since 2006. HRR’s traffic base currently consists of ethanol, food and feed products, and a variety of industrial products. The short line also offers transload services. In August 2024, Pinsly Railroad Company announced the acquisition of Hondo Railway. This agreement is subject to regulatory approval. For further information, visit: https://hondorailway.com/.

LaSalle Railway (LSRY)

The LaSalle Railway (LSRY) provides railway and transloading services in La Salle and Webb Counties in Texas. This switching and terminal railroad has direct access connection with UP. For further information, visit: https://lasallerailway.com/.

Moscow, Camden & San Augustine Railroad (MCSA)

The Moscow, Camden & San Augustine Railroad (MCSA) dates back to 1898 to serve lumber interests owned by the W. T. Carter & Brother Lumber Company. MCSA was a common carrier offering both freight and passenger service, eventually operating between Moscow to Camden, Texas. Today, MCSA continues to operate this trackage, now owned by Georgia-Pacific, and still handles primarily forest products including outbound plywood, lumber, and other freight. For further information, visit: https://www.gp.com/.

Orange Port Terminal Railway (OPT)

Owned by Lone Star Locomotive Leasing, the Orange Port Terminal Railway (OPT) is a terminal railroad that operates 1.8 miles of track formerly owned by SP and began service in 1995. For further information, visit: https://superiorlocomotiverepair.com/orangeport/.

Plainsman Switching Company (PSC)

The Plainsman Switching Company (PSC), a switch carrier, is a short line railroad located in Lubbock, Texas, and interchanges with UP and BNSF in downtown Lubbock. PSC operates 18 miles of track within the city of Lubbock and serves a variety of customers, shipping and receiving commodities such as grain, chemicals, cotton seed, cotton seed oil, specialty sands, non-perishable food items, and lumber. PSC handles transloading for a variety of commodities including windmill components and provides short-term warehousing. For further information, visit: https://pycoindustriesinc.com/.

R.J. Corman – Texas Lines (RJCD)

Owned by R.J. Corman Railroad Group, the R.J. Corman – Texas Lines (RJCD), formerly known as the Texas South-Eastern Railroad until 2014, operates on 13.1 miles of track and interchanges with UP at Diboll, Texas. Traffic transported includes lumber, plastic, frac sand, molasses, urea and other chemicals. For further information, visit: https://www.rjcorman.com/companies/railroad-company/our-short-lines/texas-lines-rjcd.

Sabine River & Northern Railroad (SRN)

International Paper owns the Sabine River & Northern Railroad (SRN) and operates about 40 miles of track on two lines serving Bessmay, Echo, Buna, and Evadale, Texas. The trackage was built in the mid-1960s to serve a linerboard mill. Today, the future of SRN is unknown, as its primary customer, the International Paper Plant in Orange, Texas, shutdown in 2023. For further information, visit: https://www.internationalpaper.com/N/A.

San Jacinto Transportation Company (SJTC)

Located in Houston, SJTC operates 6 miles of existing rail throughout the San Jacinto River and Rail Park, although currently there are no rail operations at the facility. SJTC has access to both UP and BNSF. SJTC is owned by SJRE Railroad Series and is being overseen by directors of the Big Spring Rail System. For further information, visit: https://www.sanjacintoriverandrail.com/.

South Plains Lamesa Railroad (SLAL)

The South Plains Lamesa Railroad (SLAL) is small short line that operates in the Lubbock, Texas area providing mostly switching and terminal services. SLAL has been in operation since 1993 and also offers railcar storage and transload services. For further information, visit: https://splrr.com/.

Southwest Gulf Railroad (SGRR)

Incorporated in 2003, Southwest Gulf Railroad (SGRR) is a subsidiary of Vulcan Materials Company, LLC (the largest producer of construction aggregates in the U.S.) and a major producer of other construction materials. In 2008, the U.S. Surface Transportation Board (STB) granted SGRR the authority to build and operate The Medina Line, a 12-mile common carrier railroad near Dunlay, Texas. SGRR has access to both BNSF and UP. Operations began in 2019. For further information, visit: https://sgrr.com/.

Texas Central Business Lines (TCB)

This 5-mile terminal railroad, Texas Central Business Lines (TCB), serves the industries of the Midlothian area and connects with both UP and BNSF. TCB's traffic consists of autos and trucks, steel products, and cement. For further information, visit: https://www.tcblines.com/.

Texas City Terminal Railway (TCT)

The Texas City Terminal Railway (TCT) is a switching and terminal railroad at the Port of Texas City with 32 miles of track. Traffic includes hazardous, chemical, and petroleum products. TCT connects with UP and BNSF at Texas City. For further information, visit: https://tctrr.com/home/tctrr/.

Texas & Northern Railway (TN)

Transtar owns the Texas & Northern Railway (TN) and operates a 7-mile route with 32 miles of car storage capacity near Lone Star, Texas. TN currently interchanges with CPKC at Veals Yard. The railroad began operations in 1948 to serve steel mills, but in 2020, the Lone Star Tubular plant was put on indefinite idle. Primary operations now include transloading and car storage. For further information, visit: https://transtarrail.com/our-locations/texas-northern-railway-company/.

Texas & Oklahoma Railroad (TXOR)

The Texas & Oklahoma Railroad (TXOR) owns and operates an 18-mile railroad line from Shaufler to Maryneal, Texas and crosses approximately five miles of BNSF track to interchange at the Sweetwater Yard. TXOR's primary commodity is cement from the plant in Maryneal.

Texas Pacifico Transportation LTD (TXPF)

TXPF operates freight service over 391 miles of state-owned trackage (South Orient Rail Line) in western Texas. The line runs from San Angelo Junction to Alpine Junction, Texas. TXPF has trackage rights over UP between Alpine Junction to Paisano Junction, and operates from Paisano Junction to International Bridge near Presidio, Texas. TXPF

interchanges with Ferromex (FXE) in Presidio and BNSF and FWWR in San Angelo. For further information, visit: http://www.texaspacifico.com/.

Western Rail Road (WRRC)

As a subsidiary to Cemex US, Western Rail Road (WRRC) operates a 1.9-mile railroad line extending from a connection with UP at Dittlinger to Stonetown, Texas. Traffic is crushed rock and other aggregates and cement. For further information, visit: https://www.cemexusa.com/-/new-braunfels-balcones-cement-plant.

Wichita, Tillman & Jackson Railway (WTJR)

The Wichita, Tillman & Jackson Railway Company (WTJR) is currently owned by the Rio Grande Pacific Corporation, running on disconnected trackage in Texas (18 miles) and Oklahoma once owned by the Rock Island and UP. WTJR has been in service since 1991 and interchanges with BNSF and UP at Wichita Falls, Texas. Shipments are primarily agricultural products, glass materials, steel scrap, and fertilizer. For further information, visit: https://rgpc.com/railroads/wichita-tillman-jackson-railway/.

State Owned Rail Lines and Other Railroads

This section describes state-owned rail lines and other non-operating rail owners, such as Texas Rural Rail Transportation Districts. Non-operating rail owners own trackage in Texas that is part of the state rail network, but have established agreements with operators to provide rail service.

State of Texas

The State of Texas, acting by and through the Texas Department of Transportation (TxDOT), owns several rail lines in the state on which railroads operate. Brief descriptions of these railroads are provided below.

South Orient Rail Line (SORR)

The South Orient Rail Line (SORR) is a state-owned line that extends approximately 391 miles from San Angelo Junction (in Coleman County, five miles southwest of Coleman) through San Angelo to Presidio at the Texas-Mexico border.[9] It was constructed to interchange with Ferromex at Presidio. The Presidio-Ojinaga International Rail Bridge was reconstructed in 2021, but the reopening has been delayed due to challenges in constructing the Customs and Border Patrol inspection station. The inspection station is expected to be completed in the summer of 2025. The line also interchanges with BNSF and FWWR at San Angelo Junction. Since 2001, TXPF operates and maintains the SORR under a lease and operating agreement with TxDOT.

Bonham Subdivision

In 2006, TxDOT entered into a lease agreement with Fannin County Rural Rail Transportation District (FRRTD) to operate on the state-owned rail line located in Lamar and Fannin Counties that extends from Mile Post 94.0 to Mile Post 127.5 on the Bonham Subdivision—a total of approximately 33.5 miles.[10] Currently, there is no service on the

9 https://ftp.txdot.gov/pub/txdot/move-texas-freight/2022-south-orient-rail-annual-report.pdf.

10 https://ftp.txdot.gov/pub/txdot-info/rail/rural/fannin/lease.pdf.

line and FRRTD is working to identify potential funding sources for rehabilitation of the line and possible operators that it would contract for freight rail service.

Northeast Texas Rural Rail Transportation District

The Northeast Texas Rural Rail Transportation District (NETEX) secured a legislative appropriation rider that granted it funds from state general revenue, through TxDOT, for the purchase and operation of the rail line from a point west of Sulphur Springs at Mile Post 524.0 to a point west of Greenville at Mile Post 555.0.[11] In 2020, NETEX selected Northeast Texas Connector (NETC), which is owned by Freedom Rail Group to serve as the operator of the line. Since being selected, Freedom Rail Group has been working to upgrade the track and infrastructure to FRA Class 2 standards by 2027. Freedom Rail Group moves commodities such as agriculture, grain, steel, cement, lumber, recycling, aluminum, and structural steel.

Texas Rural Rail Transportation Districts

Rural Rail Transportation Districts (RRTDs) in Texas are formed to prevent the loss of rural rail lines that have been abandoned by rail companies or to maintain the former rail right-of-way for future transportation uses. As of 2025, the number of known RRTDs created in the state is 45. Of the many roles that a RRTD performs, one of the most important authorities it possesses is the ability to own railroad right-of-way or infrastructure. Many RRTDs have used this authority to purchase railroad right-of-way that is threatened with abandonment or otherwise preserve right of way for future use.

Some examples of RRTD ownership or leasing of railroad right-of-way and infrastructure in Texas include:[12]

- FRRTD finalized two leases for separate segments of rail line connecting Bonham and Paris, Texas totaling approximately 35 miles. The leases were executed through a series of agreements among the RRTD, TxDOT (33.5 miles in 2006), and the Bonham Economic Development Corporation (BEDCO) (1.28 miles in 2012).
- In May 2010, the Rusk County RRTD purchased an approximately 14-mile rail line known as the Henderson-Overton Branch, which runs between Henderson and Overton, Texas. UP had petitioned to abandon the line before the RRTD purchased the line for $1.026 million. Freight service was restored to the line through a short line operator (BLR) in June 2010.
- The Top of Texas RRTD was formed in 2006 to prevent the abandonment of a railroad line through Hansford, Lipscomb and Ochiltree Counties. The RRTD negotiated a deal to gain fee-simple ownership of the 90-mile right-of-way, while the former railroad owner salvaged the rail materials. The agreement allowed the businesses along the line to retain their leases and the RRTD collects lease payments as income. The RRTD board is actively marketing the right-of-way for electric transmission lines or other opportunities.

RRTDs are discussed in more detail in Chapter 5.

11 https://ftp.txdot.gov/pub/txdot-info/rail/rural/netex/funding.pdf.

12 http://ftp.dot.state.tx.us/pub/txdot-info/rail/rural/rrtd-update.pdf.

Greens Port Industrial Park

Watco operates rail service at Greens Port Industrial Park located on 735 acres on the Houston Ship Channel in Harris County, Texas. Greens Port is one of the largest private multi-tenanted industrial parks in the Gulf Coast market. This industrial park offers deep water and barge docks along the Houston Ship Channel. Greens Port provides approximately three million square feet of indoor warehousing that feature large bay widths, numerous cranes ranging from five to 125-ton capacity, the ability to clear heights ranging from 20 to 45 feet, and heavy floor loading capacity. Direct rail service to buildings and storage yards is also available.

Watco Switching Services

Watco Switching Services began providing specialized industrial contract switching services in 1983. Watco currently operates contact switching services at the following locations:

- Freeport, Texas
- Seadrift, Texas
- Deer Park, Texas

Watco Terminal Services

Watco's Terminal and Port Services (WTPS) is the rail centered transloading division that brings together all aspects of terminal or port operations to better serve the needs of their customers. Watco currently provides terminal services at the following locations:

- Coady Transload Terminal, Baytown, Texas
- Greens Port Rail Terminal, Houston, Texas
- Houston Terminals, Houston, Texas
- Port Arthur Dedicated Terminal, Port Arthur, Texas
- Port 10/Watco Rail Terminal, Baytown, Texas
- Refugio Transload Terminal, Refugio, Texas

Industrial Railroads

Industrial railroads exist in Texas and typically provide intraplant and interplant rail switching service to industrial and manufacturing customers and to coordinate and facilitate carload interchange with operating Class I, II, or III railroads. These small privately owned switching railroads operate over private track on private property and exist at many grain elevators and ethanol plants in Texas. These operations can be owned and operated by the company they serve or can be operated under a contract agreement with an outside party. The mileage of privately owned industrial track is not included in route-mile calculations of the Texas rail network. Specific industrial railroad applications in Texas are not identified in the 2024 Texas Rail Plan.

Passenger Rail Network

This section summarizes the history of passenger rail service in Texas and also provides an overview of the current intercity passenger, commuter rail, light rail, streetcar, and tourist train services provided in Texas. Potential future

intercity passenger and commuter rail improvements, and new services proposed or in development, are discussed in Chapter 3.

Passenger rail services are divided into six categories in this rail plan and are defined as follows:

- *High-speed rail* is defined as rail operating at speeds of 125 mph or above on non-stop or with limited stops between cities and operating on a grade-separated, dedicated right of way.
- *Intercity passenger rail* is defined is defined as rail serving multiple cities on routes with longer distances (typically 100 miles or more) and more frequent stops and operating on tracks that are part of the existing national railroad network at conventional passenger train speeds.
- *Commuter rail* is defined as rail primarily serving work commuters and local travelers between communities in an urban area or metropolitan region, on routes with frequent stops, and typically operating on tracks that are part of the existing national railroad network.
- *Light rail* is defined as public transportation operating on rail within an urban area. Light rail vehicles are electric rail cars operating in dedicated rights of way that are either separated from other traffic or in city streets mixed with general traffic.
- *Trolley and streetcars* are defined as local public transportation using vehicles that run on dedicated tracks to provide short-trip urban circulation. Vehicles range from vintage trolleys to modern multi-section articulated streetcars.
- *Tourism rail* is defined as rail operating generally for entertainment and sightseeing purposes.

The Texas Rail Plan focuses primarily on intercity passenger rail and commuter rail services. However, light rail, streetcar, and trolley systems are also discussed in this chapter to provide a complete description of existing passenger rail services and underscore the value of the connectivity they provide with the other types of passenger services. Tourism rail is also included because some tourist train services, such as the Hill Country Flyer and the Grapevine Vintage Railroad, are affected by freight and non-tourist passenger train operations and may even offer potential as future corridors for non-tourist passenger rail services. Table 2-2 lists the current providers of passenger rail services in Texas by category: Amtrak, commuter agencies, local transit authorities, municipalities, and tourist organizations.

The primary sources of data for this chapter are information from and about the rail and transit agencies operating services in Texas.

As discussed in later sections, many public entities within Texas have the authority to design, construct, and operate passenger rail in the state. TxDOT’s role is to coordinate the efforts of these entities to provide a cohesive passenger rail plan for the state. Figure 2-7 shows an example of passengers transferring from light rail to commuter train, and the value of connectivity between systems to enable seamless transfers and provide more ways for travelers to reach more destinations.

Figure 2-7: DART Light Rail Passengers Transferring to a TRE Commuter Train in Dallas

Source: DART

Table 2-2: Passenger Rail Providers and Services in Texas

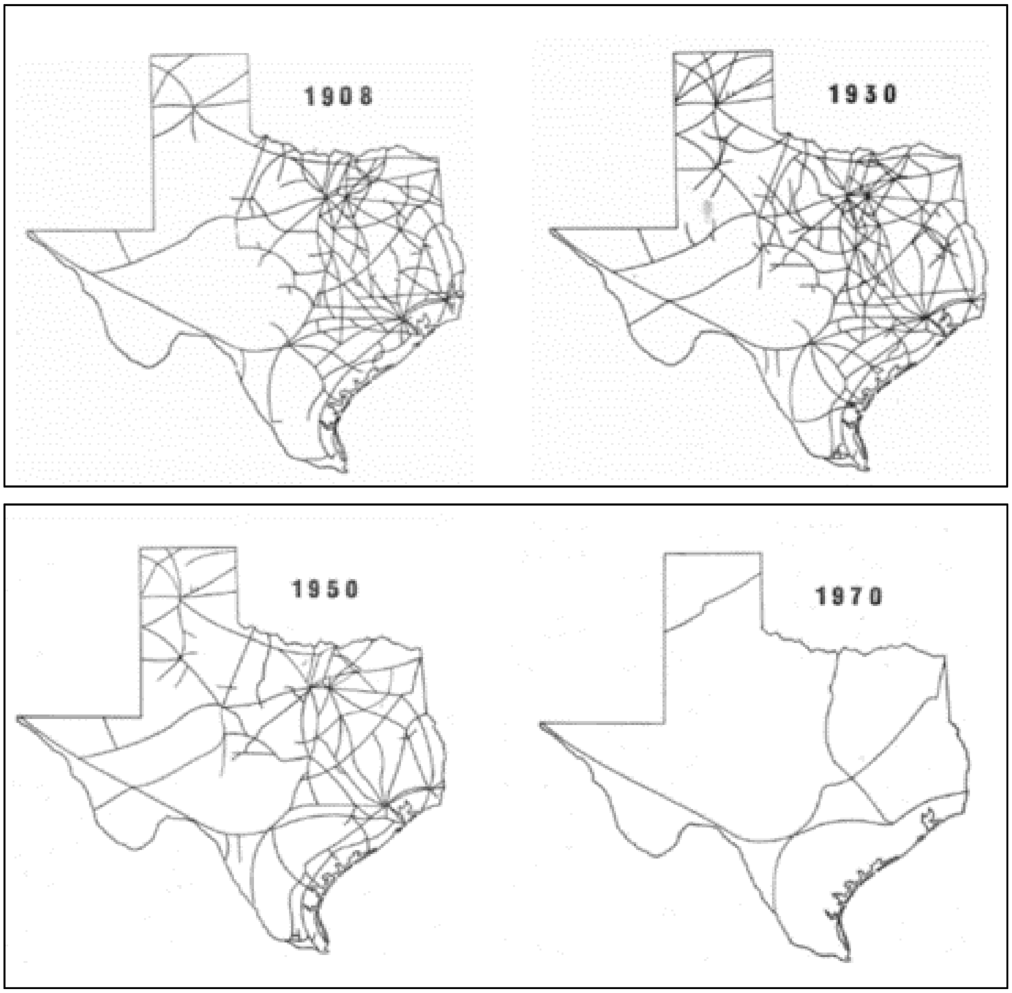
Passenger Rail Category	Providers	Service Name
High Speed Rail	No high-speed rail service currently provided	None
Intercity Passenger Rail	Amtrak	Heartland Flyer
		Texas Eagle
		Sunset Limited
Commuter Rail	Dallas Area Rapid Transit (DART) and Trinity Metro	Trinity Railway Express (TRE)
	Denton County Transportation Authority (DCTA)	A-Train
	Capital Metropolitan Transportation Authority	MetroRail
	Trinity Metro	TEXRail
Light Rail	Dallas Area Rapid Transit (DART)	DART Rail
	Metropolitan Transit Authority of Harris County (METRO)	METRORail
Trolley and Streetcar	Dallas Area Rapid Transit (DART)	Dallas Streetcar
	McKinney Avenue Transit Authority and Dallas Area Rapid Transit (DART)	McKinney Avenue Trolley/M-Line
	Sun Metro	El Paso Streetcar
	Island Transit (City of Galveston)	Galveston Island Trolley
Tourism Rail	The Western Group	Texas State Railroad
	Austin Steam Train Association	Hill Country Flyer
		Bertram Flyer
	Grapevine Vintage Railroad	Cotton Belt Route
		Trinity River One-Hour Excursion Rides
		Bear Creek Short Line Excursion
	Galveston Railroad Museum	Harborside Express
	Texas Transportation Museum	Longhorn & Western Railroad

Historical Passenger Rail Perspective

Historically, Texas was served by a network of long-distance, interstate passenger trains linking Texas, the Gulf Coast and Mexico with key Midwest cities and the West Coast. In addition to providing long-distance service, these interstate passenger trains also provided local service between cities in Texas and adjacent states. Only Southern Pacific's Dallas – Houston route operated trainsets specifically oriented for local service. Multiple railroads operated passenger rail service in the Dallas – Houston and Houston – New Orleans city pairs, and the total number of departures among the different railroads provided a level of frequency that almost reached the level of a "corridor service." In addition to transporting passengers, these long-distance trains also carried mail and express. Rail

stations, usually located close to the center of each community, were activity hubs with city development radiating outward. Public investment in roads and the airways system and the resulting shift in travel to other modes of transportation resulted in a loss of rail passengers and a reduction of the once extensive passenger rail network. Figure 2-8 illustrates the extent and decline of the passenger rail network in Texas. In an effort to address this decline, Amtrak took over the operation of intercity passenger trains across the United States in May of 1971, consolidating and coordinating the remaining passenger rail services into one unified network.

Figure 2-8: Texas Intercity Passenger Rail Network Extent (1908-1970)



Source: Texas A&M Transportation Institute, The History of Rail Passenger Service in Texas 1820-1970, 1976.

Amtrak Long-Distance and Intercity Network

Amtrak, the National Railroad Passenger Corporation, operates all of the current intercity passenger rail service in Texas. This section provides an overview of the overall Amtrak system in Texas. With the exception of Eddie Bernice Johnson Union Station in Dallas, the Fort Worth Central Station, and the commuter agency trackage between Fort Worth and Dallas, Amtrak operates entirely over trackage owned and operated by Class I freight railroads. Three different Amtrak trains provide passenger rail service in Texas: the *Heartland Flyer*, *Texas Eagle*, and *Sunset Limited* (Figure 2-9). The *Sunset Limited* and *Texas Eagle* are cross-country, long-distance trains operated with Superliner (double-deck) coaches, sleeping cars, and dining and lounge cars. The *Heartland Flyer* is a regional train serving

Texas and Oklahoma that operates with Superliner coaches and a Superliner snack coach. By using a combination of freight railroad lines, Amtrak's routes in Texas serve most of the state's major urban areas. However, with the exception of the *Heartland Flyer*, which is sponsored by the states of Texas and Oklahoma, Amtrak's routes and schedules are focused on serving longer distance passengers and providing the maximum connectivity to the Amtrak network as a whole.

Figure 2-9: Current Texas Amtrak Routes

Source: TxDOT

Heartland Flyer

The *Heartland Flyer* operates daily between Oklahoma City, Oklahoma and Fort Worth, Texas (206 miles) serving the intermediate stations of Norman, Purcell, Pauls Valley, and Ardmore, Oklahoma. There is one intermediate stop in Texas, at Gainesville. The schedule allows same day trips to Fort Worth, as well as connections to other rail services. Under schedules in effect in 2024, the southbound *Heartland Flyer* leaves Oklahoma City at 8:25 a.m., arriving in

Fort Worth at 12:27 p.m. Northbound, the train leaves Fort Worth at 5:25 p.m. and arrives in Oklahoma City at 9:27 p.m.

At the Fort Worth Central Station (formerly named the Fort Worth Intermodal Transportation Center, or Fort Worth ITC), *Heartland Flyer* riders can connect with Amtrak's *Texas Eagle* for travel to Dallas, Longview, Texarkana, Temple, Austin, San Antonio, and cities along the route in Arkansas, Missouri, Illinois, New Mexico, Arizona and California (see Figure 2-10). Passengers at Fort Worth Central Station can also connect with two different commuter rail services: (1) Trinity Railway Express (TRE) commuter trains for travel to EBJ Union Station in Dallas as well as cities between Fort Worth and Dallas, and (2) TEXRail commuter trains to Grapevine and Dallas/Fort Worth (DFW) International Airport. In addition, *Heartland Flyer* riders at Fort Worth can connect to an Amtrak Thruway Bus route serving Waco, Bryan (College Station), Prairie View, and Houston.

Figure 2-10: Heartland Flyer at Fort Worth Central Station

Source: TxDOT

Fort Worth Central Station is also a hub for local transit buses operated by Trinity Metro (formerly the Fort Worth Transportation Authority). At the other end of the route in Oklahoma City, Amtrak in 2016 introduced a Thruway Bus service that connects with the *Heartland Flyer* and operates north to Wichita, Kansas (the largest city in Kansas) and Newton, Kansas, where connections can be made with Amtrak's *Southwest Chief* train operating between Chicago, Illinois and Los Angeles, California.

The route segments of the *Heartland Flyer* are presented in Table 2-3. The *Heartland Flyer* operates on 206 miles of track owned by BNSF. In an effort to improve the competitive position of the service compared to auto travel and to increase ridership, TxDOT received a $3.8 million grant funded through the American Recovery and Reinvestment Act of 2009 (High-Speed Rail grants) to upgrade the signals along the Texas portion of the route to allow for an increase in speeds to 79 mph. This upgrade reduced the trip time from approximately 4 hours and 15 minutes to 4 hours and 2 minutes for travel from Oklahoma City to Fort Worth, saving approximately 13 minutes.

Table 2-3: Route Segments of the Heartland Flyer

Route Segment	Length (miles)
Oklahoma City – Norman	20 miles
Norman - Purcell	15 miles
Purcell – Pauls Valley	22 miles
Pauls Valley - Ardmore	45 miles
Ardmore - Gainesville	39 miles
Gainesville – Fort Worth	65 miles
Total:	**206 miles (71 miles in Texas)**

The *Heartland Flyer* operates with Amtrak Superliner equipment. These cars are bi-level, with passenger accommodations on two levels. The train carries one Superliner coach car and one Superliner snack coach car. During periods of high travel demand or special events, Amtrak has added a third Superliner coach car to the train to accommodate additional riders. A single diesel locomotive provides the motive power for the train. The opposite end of the train will have either a second diesel locomotive or a Non-Powered Control Unit, which is a former locomotive that has retained its train control equipment and cab for train operation but has had its propulsion equipment removed and the space retrofitted to provide storage for baggage (although checked baggage is not offered on the *Heartland Flyer*). The capacity of the two-car train is about 136 passengers. Amtrak added a "Pets on Board" program to the Heartland Flyer in 2016, which allows passengers to bring their dogs or cats in an enclosed carrier on board the train with them for a $29 fee. In addition to food service, the *Heartland Flyer* offers the Trails & Rails program, which is a partnership between Amtrak and the National Park Service. Volunteer docents from the Chickasaw National Recreation Area periodically ride the *Heartland Flyer* describing the geographic, cultural, and historical background of the countryside the train is passing through.

Sunset Limited

Figure 2-11: Sunset Limited at El Paso

Source: TxDOT

The *Sunset Limited* operates three days per week in each direction between Los Angeles, California and New Orleans, Louisiana (1,995 miles), serving major intermediate stations at Maricopa, Arizona (Phoenix), Tucson, Arizona, El Paso, Texas, San Antonio, Texas, and Houston, Texas (937 miles in Texas). At Amtrak's San Antonio station, through cars (one coach and one sleeping car) routed from Chicago, Illinois on the *Texas Eagle* are switched to the *Sunset Limited* for travel to and from Los Angeles. Under schedules in effect in 2024, the eastbound *Sunset Limited* passes through central and eastern Texas on Tuesday, Friday, and Sunday; the westbound train passes through central and eastern Texas on Monday, Wednesday, and Saturday. Eastbound the train leaves Los Angeles at 10:00 p.m. on Sunday, Wednesday, and Friday (day 1), stopping at El Paso at 3:00 p.m.

(day 2), leaving San Antonio at 6:25 a.m. (day 3), arriving in Houston at 11:10 a.m. (day 3), and arriving in New Orleans at 9:40 p.m. (day 3). Westbound the train leaves New Orleans at 9:00 a.m. on Monday, Wednesday, and Saturday (day 1), leaving Houston at 6:55 p.m. (day 1), arriving at San Antonio at 12:05 a.m. (day 2), stopping at El Paso at 1:25 p.m. (day 2), and arriving in Los Angeles at 5:35 a.m. (day 3). The train also serves four smaller cities in Texas, stopping at Beaumont, Del Rio, Sanderson, and Alpine. The *Sunset Limited* offers overnight service between Houston and El Paso and provides daytime/evening service (7- to 12-hour rides) locally within central and eastern Texas. However, the tri-weekly operation significantly limits the appeal of the train for short-distance travel within Texas. Short-distance travelers are more likely to take trips when same-day or next-day departures (daily service) are available. Convenient, consistent service is critical to their mode choice.

The route segments for the *Sunset Limited* are presented in Table 2-4. Through Texas, the *Sunset Limited* operates on track owned by UP. The *Sunset Limited* operates with Amtrak Superliner equipment (Figure 2-11). These cars are bi-level, with passenger accommodations on two levels. The train carries coaches and a coach-baggage car, sleeping cars, a dining car, and a Sightseer Lounge with a total capacity of about 300 passengers (including the through coach and sleeper from Chicago).

Table 2-4: Route Segments of the Sunset Limited

Route Segment	Length (miles)
Los Angeles – Maricopa (Phoenix)	416 miles
Maricopa - Tucson	86 miles
Tucson – El Paso	315 miles
El Paso – San Antonio	605 miles
San Antonio - Houston	210 miles
Houston - New Orleans	363 miles
Total:	**1,995 miles (937 miles in Texas)**

Texas Eagle

The *Texas Eagle* operates on a daily schedule between Chicago, Illinois and San Antonio, Texas (1,305 miles), serving major intermediate stations at St. Louis (Missouri), Little Rock (Arkansas), Dallas, Fort Worth, and Austin (with 531 miles of its route in Texas, more than any other state). Three days per week, eastbound and westbound, through cars (one coach and one sleeper) to and from Los Angeles, California via the connecting *Sunset Limited* (serving Tucson and El Paso) are switched onto and off the *Texas Eagle* in San Antonio.

Under schedules in effect in 2024, the eastbound *Texas Eagle* leaves San Antonio at 6:48 a.m., stopping in Austin at 9:14 a.m., leaving Fort Worth at 2:18 p.m., Dallas at 3:38 p.m., and arriving in St. Louis at 7:30 a.m. (the next day) and Chicago at 1:44 p.m. The westbound train leaves Chicago at 1:52 p.m., and St. Louis at 7:42 p.m., arriving in Dallas at 11:40 a.m. (the next day), Fort Worth at 1:17 p.m., Austin at 6:35 p.m., and San Antonio at 10:16 p.m. The train also serves the following smaller cities in Texas: Marshall, Longview, Mineola, Cleburne, McGregor, Temple, Taylor, and San Marcos. The *Texas Eagle* offers overnight service between St. Louis and Dallas

and daytime/evening service (7- to 12-hour rides) locally within northern and central Texas between San Antonio and Texarkana.

The route segments for the *Texas Eagle* are presented in Table 2-5. Through Texas, the *Texas Eagle* operates on tracks owned by the UP (from San Antonio to Temple, and Dallas to Texarkana), BNSF (Temple to Fort Worth), and TRE (Fort Worth to Dallas). TRE is a commuter rail agency jointly owned by Dallas Area Rapid Transit (DART) and Trinity Metro. The *Texas Eagle* shifted its route between Fort Worth and Dallas in 2016, relocating away from UP's freight rail tracks and onto TRE's commuter rail line, after completion of a $14.4 million project that added 1.4 miles of double track, a new bridge, and a new crossover on the TRE corridor. This routing change eliminated the *Texas Eagle*'s time-consuming backup move through the Tower 55 at-grade crossing of freight rail lines, improved freight train movements in the region, and increased passenger train reliability. The train has also benefited from reliability improvements generated by the Tower 55 Multimodal Improvement Project.

Table 2-5: Route Segments of the Texas Eagle

Route Segment	Length (miles)
Chicago – St. Louis	284 miles
St. Louis – Little Rock	350 miles
Little Rock – Texarkana	140 miles
Texarkana – Dallas	217 miles
Dallas – Fort Worth	31 miles
Fort Worth – San Antonio	283 miles
Total:	**1,305 miles (531 miles in Texas)**

The *Texas Eagle* operates with Amtrak Superliner equipment (Figure 2-12). These cars are bi-level with passenger accommodations on two levels. The train carries coaches and a coach-baggage car, a sleeping car, and a diner-lounge car. The train's capacity is about 180 passengers south of St. Louis.

Figure 2-12: Eastbound and Southbound Texas Eagle Trains at Fort Worth Central Station

Source: TxDOT

In 1996, Amtrak announced that it would terminate the *Texas Eagle*, which at the time ran three times a week between Chicago and Los Angeles. Efforts by community and passenger stakeholders, aided by TxDOT and the 75th Texas Legislature, facilitated a loan of $75 million that forestalled this proposal. Through this action, *Texas Eagle* service was retained.

In addition, to improve the financial performance of the route, train frequency was increased from tri-weekly to daily. Daily service not only improved equipment and crew utilization but also provided travelers with more attractive service options, especially for shorter distance trips between cities in Texas.

Multimodal Connectivity: Amtrak Thruway Bus

Thruway Bus services extend Amtrak's route network with connections between trains and buses facilitated by through ticketing, scheduling, and reservations. Amtrak's Thruway Bus routes in Texas include Houston-Longview, Houston-Galveston, Galveston-Longview, Fort Worth-Houston and Fort Cavasos (formerly Fort Hood)-Killeen-Temple (Table 2-6). Amtrak Thruway Bus schedules are coordinated with the Amtrak passenger rail schedules, and the connection is guaranteed so the motorcoach arrives before a train arrives and departs after the train departs. In addition to the services described above, additional Thruway Connections exist that shuttle passengers from the Dallas Greyhound bus station eastward for connections with Amtrak's *City of New Orleans* (a New Orleans-Chicago train) at Jackson, MS, and with Amtrak's *Crescent* (New Orleans-New York) at Meridian, MS. Amtrak also has interline ticketing agreements with several other intercity motorcoach operators wherein Amtrak acts as a sales agent and sells tickets on key motorcoach routes. While those schedules are not coordinated or guaranteed, interline ticketing does offer the traveling public additional convenience, travel options, and increases awareness of non-automobile travel alternatives.

Table 2-6: List of Connecting Thruway Bus Services

Train Routes	Amtrak Stations with Thruway or Intercity Bus Connections	Destinations	Operator
Heartland Flyer, Texas Eagle	Fort Worth	Waco	Greyhound
		Bryan	Greyhound
		Prairie View	Greyhound
		Houston	Greyhound
Texas Eagle	Longview	Shreveport, Louisiana	Lone Star Coaches
		Nacogdoches	Lone Star Coaches
		Houston	Lone Star Coaches
		Galveston	Lone Star Coaches
	Temple	Fort Cavazos	Southwestern Coaches
		Killeen	Southwestern Coaches
	Dallas: Connecting service available at Greyhound station	Tyler	Greyhound
		Shreveport, Louisiana	Greyhound
		Jackson, Mississippi	Greyhound
		Meridian, Mississippi	Greyhound
Sunset Limited	Houston	Galveston	Lone Star Coaches
	El Paso: Connecting service available at Greyhound station	Las Cruces, New Mexico	Greyhound
		Albuquerque, New Mexico	Greyhound
	San Antonio: Connecting services for both *Texas Eagle* and *Sunset Limited* routes available at Greyhound station	Harlingen	Valley Transit
		McAllen	Valley Transit
		Brownsville	Valley Transit
Crescent	Dallas: Connecting service available at Greyhound station	Meridian, Mississippi	Greyhound
City of New Orleans	Dallas: Connecting service available at Greyhound station	Jackson, Mississippi	Greyhound

Source: Amtrak

Additional Connectivity Considerations

While Amtrak's long-distance routes are reviewed individually (and origin-destination ridership data is compiled and reported on a route basis), the Amtrak network is in fact a large matrix of interconnected city pairs. Most passengers are not traveling between major endpoint cities with frequent air service. They are traveling between small and medium size cities, small cities, and large cities, often connecting at major hub cities to other trains. On short-distance, multiple frequency routes, certain schedules have large numbers of connecting riders. Passengers often are choosing the train because they live in or are traveling to towns without air or motor coach service, or

they find that their chosen travel route using the current market-based air and motor coach hub system is expensive or circuitous with long layovers at connecting hub cities.

Commuter Rail Network

Commuter rail primarily serves commuters on daily trips between suburban and urban areas and may operate within freight rail corridors. Currently, four commuter rail services operate in Texas:

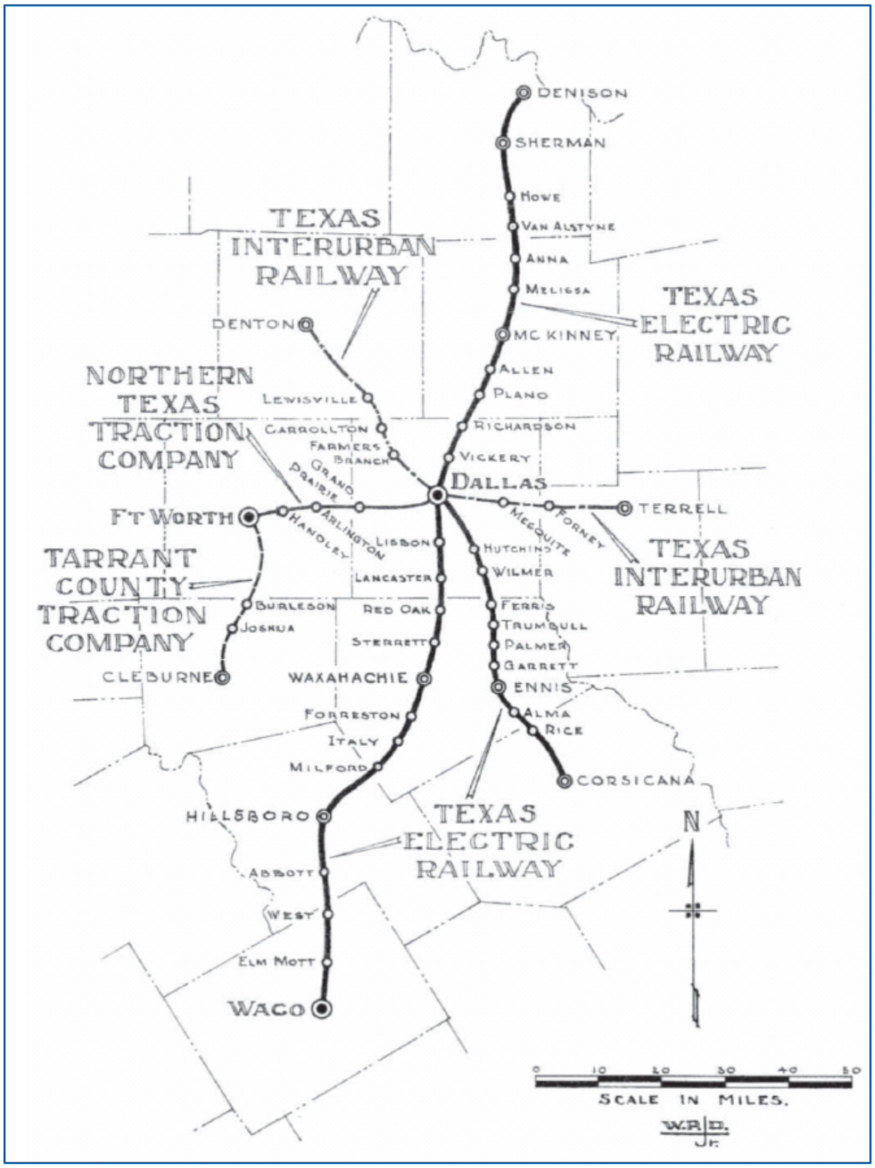
- Trinity Railway Express (TRE) between the cities of Dallas and Fort Worth
- A-train between the cities of Carrollton and Denton
- MetroRail Red Line between downtown Austin and Leander
- TEXRail between downtown Fort Worth and DFW Airport

TEXRail is the newest addition to Texas commuter rail operations, opening in January 2019. The other three established agencies also are considering expansion plans.

This section discusses the existing commuter rail services in Texas. Plans for expanding existing systems or introducing new commuter rail services in the state will be discussed in Chapter 3.

Although today’s commuter rail systems are a relatively new addition to the overall transportation network in Texas, introduced within the past two decades, the services they provide would have appeared familiar to Texans living a century ago. Figure 2-13 shows the interurban (regional rail) network that existed in the North Central Texas area from 1901 to 1948, a network that could serve as a model for regional mobility as today’s systems consider expansion and additional metropolitan regions look for effective, new transportation options.

Figure 2-13: North Texas Interurban Railways 1901–1948



Source: North Central Texas Council of Governments

Similarly, Dallas Area Rapid Transit (DART) has been negotiating right-of-way acquisitions with various freight railroads in the Metroplex for the past 30 years to allow for potential system expansions. The agency has purchased approximately 250 miles of rail lines that have been, or could be in the future, used to expand rail transit or commuter rail operations in the region. In addition to the right-of-way to Denton, now being used by the Denton County Transportation Authority's (DCTA) A-train, there are long-term plans to establish rail right-of-way links with Sherman and Rockwall County. DART has no current plans to extend service to these locations, but maintaining the option to expand the regional commuter rail network will become increasingly important as the Metroplex continues to grow. Through the acquisitions above, DART also controls an easement within an existing freight line for potential commuter service from the DART Westmoreland LRT station to Duncanville. Among DART's right-of-way acquisitions was the 54-mile Cotton Belt line between Fort Worth and Wylie, which the agency purchased in 1991 from the St. Louis Southwestern Railway. TEXRail commuter service began on January 10, 2019 on a portion of the line between

Fort Worth and DFW Airport, with construction underway to open the connecting DART Silver Line commuter rail service between DFW Airport and Plano in the next 2 years.

Operation and Establishment of Commuter Rail

The four existing commuter rail services in Texas are operated by local transit authorities, however, other entities may also initiate and operate commuter rail. The state legislature allows for the formation of commuter rail districts, under certain conditions, to facilitate the planning and implementation of rail intended primarily for daily commuting. The 75th Texas Legislature passed the first bill to authorize the formation of an intermunicipal commuter rail district in 1997 (Chapter 173, Transportation Code). In 2007, the 80th Texas Legislature authorized the creation of a commuter rail district in the Lower Rio Grande Valley (H.B. 2510; Chapter 174, Texas Transportation Code). These commuter rail districts are considered public bodies and political subdivisions of the state.

Other commuter rail services are being developed or studied by agencies created under Texas permissive statutes for the establishment of metropolitan transportation authorities and coordinated county transportation districts. In the North Texas region, commuter rail is also often referred to as regional passenger rail. The 79th Texas Legislature in 2005 authorized the creation of a freight rail district in a county with a population of 3.3 million or more (Chapter 171, Transportation Code), and the 81st Texas Legislature in 2009 added that a freight rail district may exercise the powers of an intermunicipal commuter rail district created under Chapter 173, Transportation Code.[13]

As specified in the 1997 bill authorizing an intermunicipal commuter rail district (Chapter 173, Transportation Code), a district may be created to provide commuter rail service between two municipalities if each has a population of more than 450,000 and they are located not farther than 100 miles apart as determined by TxDOT. The district may be created by resolutions stating support for the formation of the district from each municipality or county. The bill set forth the steps for creating a commuter rail district and establishing its board, as well as specifying the powers and duties of the district, and how the district should operate. The district has the power of eminent domain, may issue revenue bonds, and may acquire, construct, develop, own, operate, and maintain the rail facilities. A municipality located within the district that wants to be served by the district is required to pay for construction of a commuter rail station.

The first commuter rail district formed in response to the passage of the bill was the Lone Star Rail District (originally established as the Austin-San Antonio Intermunicipal Commuter Rail District). The district undertook some preliminary engineering and environmental analysis for a commuter rail service between San Antonio and Georgetown called the LSTAR. However, after UP announced it would no longer participate in the project, local political support from stakeholders dropped and the board of the Capital Area Metropolitan Planning Organization voted in October 2016 to remove the concept from its long-range transportation plan.[14]

In 2007, Harris County, the City of Houston, and Fort Bend County created the Gulf Coast Rail District (GCRD) under authority granted by the State of Texas in Section 171 of the Transportation Code. Chapter 171 authorized freight rail districts; however, Section 171.053 extends the purpose of the chapter to include the powers of an

13 Texas Transportation Code, http://www.statutes.legis.state.tx.us/Docs/TN/htm/TN.171.htm, Accessed June 21, 2012.

14 Statesman: Lone Star Rail officially dead after final CAMPO vote, October 18, 2016

intermunicipal commuter rail district created under Chapter 173, including the powers related to a commuter rail facility and other types of passenger rail services, including intercity rail services.[15] The GCRD is governed by a board of directors consisting of 14 appointees and three ex officio members. The GCRD chairman is jointly appointed by the Harris County Commissioners Court and the mayor of Houston. Other members include the chairman of the Port of Houston Authority and appointments by Harris County, Fort Bend County, Galveston County, Waller County, Montgomery County, the City of Houston, small municipalities in Harris County, and small municipalities in Fort Bend County. The GCRD works with public and private partners to develop and implement a systematic approach for improvement of the regional freight and passenger rail networks for the benefit of the region’s residents and economy.[16] The district has prepared feasibility studies to assess the potential for developing a regional commuter rail system in the Houston region.

In response to the 2007 bill authorizing the formation of a commuter rail district along the Texas-Mexico border, the Hidalgo County Commissioners Court created the Hidalgo Commuter Rail District to provide passenger rail services between Brownsville and the urban areas of McAllen-Pharr-Edinburg. The general provisions for the commuter rail district are similar to the intermunicipal commuter rail districts; however, some notable differences are that the commuter rail district may only be created by resolution from a county commissioner’s court rather than a municipality, and the commuter rail district may impose any kind of tax except an ad valorem tax, if approved by the majority of voters in an election on the tax proposition. The district completed a commuter rail feasibility study in 2011, paid for with federal stimulus funds, but efforts since have stalled.

The Texas A&M Transportation Institute’s 2023 Texas’ Most Congested Roadways Study analyzed roadway congestion in Texas.[17] The study found that the top 10 of the 100 most congested roadways in Texas were all located in cities that currently have some form of commuter rail or rail transit: Houston, Austin, Dallas, and Fort Worth. Commuter rail offers an attractive alternate travel option for residents in these urban areas, allowing them to avoid travel delays caused by extreme roadway congestion.

Trinity Railway Express (TRE)

The Trinity Railway Express (TRE) commuter rail operation represents one of the most significant joint services between the two largest metroplex cities since the construction of the Dallas/Fort Worth (DFW) International Airport in the early 1970s. The TRE commuter rail service (Figure 2-14) is provided by Dallas Area Rapid Transit (DART) and Trinity Metro (previously known as the Fort Worth Transportation Authority or The T). Figure 2-15 shows the TRE system. The first phase of the TRE system (10 miles) was opened in December 1996, providing service between Dallas and South Irving. A 17-mile extension to Richland Hills opened in 2000. TRE service was extended seven additional miles to downtown Fort Worth in 2001, on a route that included a rail tunnel carved through the ground floor of Fort Worth’s Alarm Supply Building. Today’s TRE system covers 33.8 miles and serves 10 permanent stations.[18] The line is anchored at each end by restored railroad stations: EBJ Union Station in Dallas, built in 1916, and the T&P Station in Fort Worth, an art deco structure opened by the Texas & Pacific (T&P) Railway in 1931.

15 Texas Transportation Code, Title 5, Railroads, Subtitle I, Special Districts, Chapter 171, Freight Rail Districts, http://www.statutes.legis.state.tx.us/Docs/TN/htm/TN.171.htm, Accessed August 6, 2024.

16 https://www.gcrd.net/ .Accessed August 6, 2024.

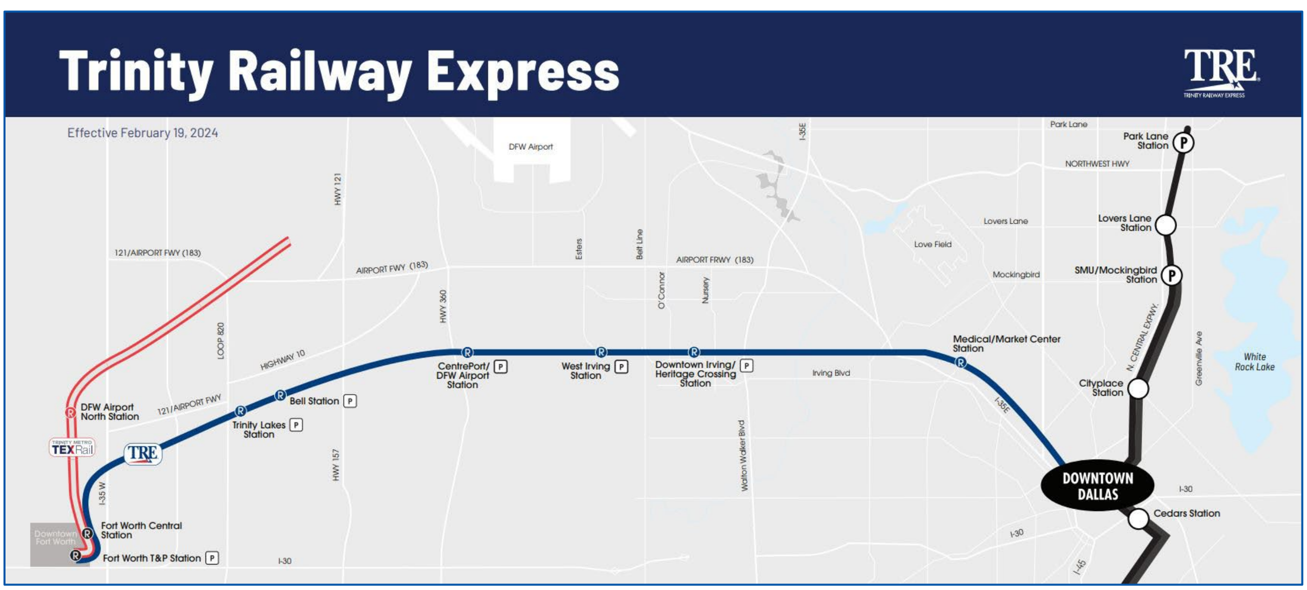
17 Texas A&M Transportation Institute: Texas’ Most Congested Roadways 2023: https://mobility.tamu.edu/texas-most-congested-roadways/. Accessed August 6, 2024.

18 DART Reference Book (March 2018).

Figure 2-14: Trinity Railway Express at EBJ Union Station in Dallas

Source: TxDOT

Figure 2-15: Trinity Railway Express Rail Route and Stations

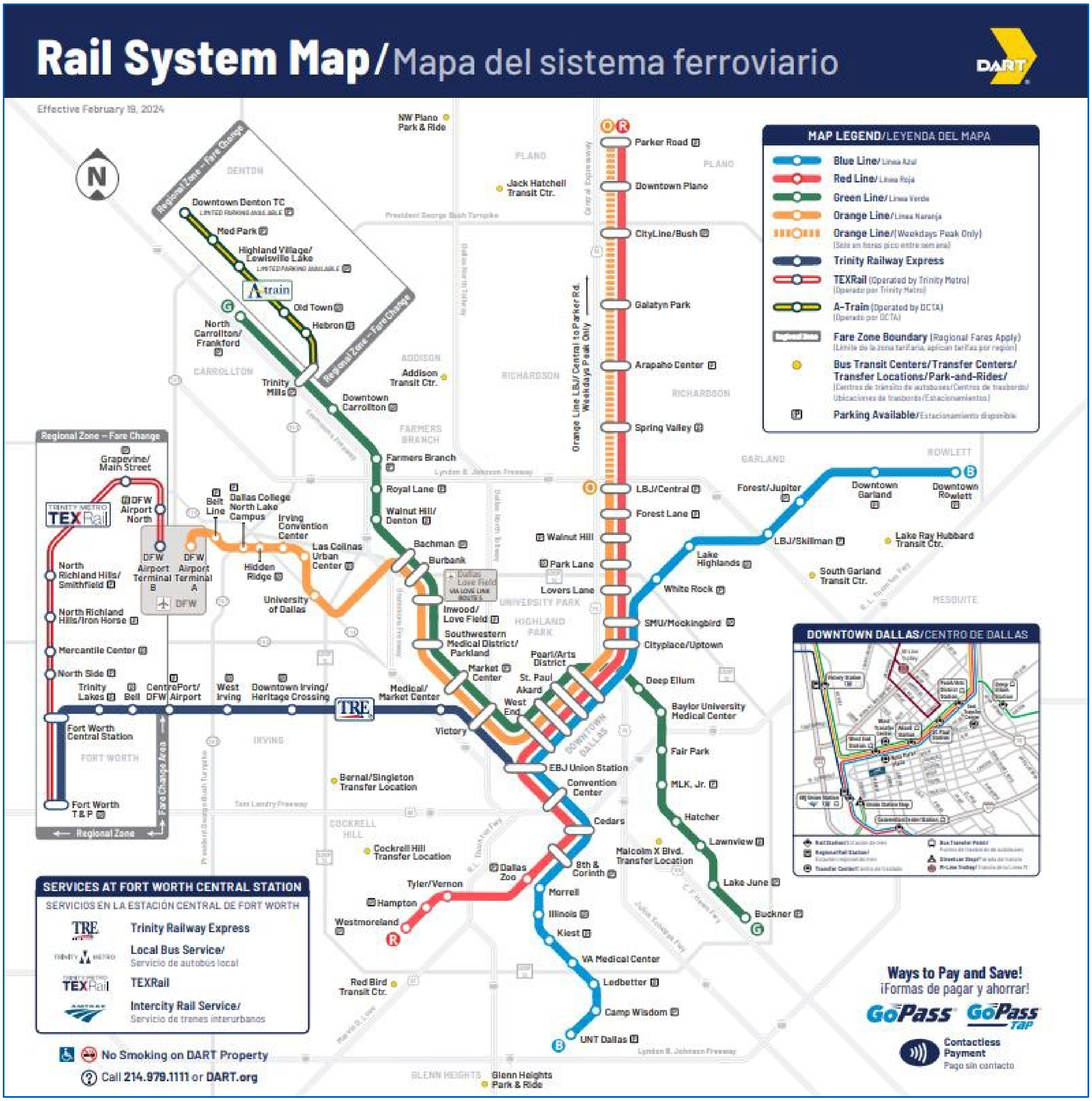


Source: TRE

TRE opened the Trinity Lakes station on February 19, 2024, replacing the nearby Richland Hills station, which closed on February 17, 2024.[19] The $26 million Trinity Lakes station serves a 1,600-acre master-planned community that includes transit-oriented development. The Downtown Irving/Heritage Crossing station was formerly known as South Irving prior to July 30, 2012, and the Bell station was previously known as Hurst/Bell. TRE commuters can make connections with Amtrak intercity passenger trains at both Fort Worth Central Station and the Eddie Bernice Johnson Union Station in Dallas. At Fort Worth Central Station, TRE commuters can make connections with TEXRail commuter rail trains to DFW Airport via North Richland Hills and Grapevine. At EBJ Union Station in Dallas, TRE commuters also can make connections to the DART light rail network, shown in Figure 2-16.

19 https://trinityrailwayexpress.org/trinity-lakes-station/#:~:text=Trinity%20Railway%20Express%20now%20makes,Richland%20Hills%20and%20Bell%20stations. Accessed August 6, 2024.

Figure 2-16: TRE Connections in Context of Regional Rail System



Source: DART

TRE operates Monday to Saturday. Weekday service operates on a 30-minute peak and 60-minute off-peak schedule.[20] The number of trains was increased to provide midday and evening service in December 1997. In December 1998, Saturday service was added. The current TRE schedule offers 35 eastbound trains on weekdays throughout the day, 24 of which run from the Fort Worth T&P Station to EBJ Union Station in Dallas; six trains run only from West Irving to Dallas and five trains only run from Fort Worth to CentrePort, seven on Fridays. TRE runs

20 https://trinityrailwayexpress.org/wp-content/uploads/2024/02/TRE-Schedule-Feb-2024.pdf. Accessed August 6, 2024.

21 eastbound trains on Saturday, 18 of which operate the full distance from Fort Worth to Dallas. On weekdays, there are 33 westbound trains, 26 of which run the full length from Dallas to Fort Worth, 28 on Fridays. Three westbound trains start at CentrePort to go to Fort Worth, and four trains run from Dallas to West Irving or Centreport, two on Fridays. TRE runs 21 westbound trains on Saturday, 18 of which operate the full distance from Dallas to Fort Worth.

The vehicle fleet consists of 11 General Motors-built diesel locomotives (seven F59PH, two F59PHI, and two F40PH locomotives), 17 bilevel coaches, and eight bilevel cab cars.[21] A standard two-car train configuration seats up to 290 passengers, while the standard three-car train configuration seats around 440 passengers. Herzog Transit Services, Inc. operates the TRE trains and maintains the equipment under a contract with DART and Trinity Metro. In March 2024, TRE's two agency boards approved a $66 million contract with Siemens to acquire five new Charger locomotives in a joint procurement with Illinois DOT, as part of a TRE fleet strategy to replace aging diesel locomotives. Up to six additional locomotives could be purchased in future phases, subject to the availability of external funding.

Except for a slight decrease in 2004 and 2005, annual ridership on TRE has increased from its inception until 2009, especially after 2001 when TRE was extended to Fort Worth (see Table 2-7). From FY 2007 to FY 2010, TRE ridership included passengers on the "Big Tex Express," a weekend shuttle from a remote parking lot to the State Fair of Texas. The end of that service in FY 2011, combined with employment downturns in the Dallas central business district and the Dallas medical district, were the primary causes for a decrease in ridership in FY 2010 and FY 2011. In addition, TRE fares effectively doubled during that time period, which also was a contributing factor in the ridership decline.[22] After 2011, TRE ridership stabilized, with around approximately 2.1 million passengers per year and an average weekday ridership of 7,400 passengers. The COVID-19 pandemic caused ridership to drop significantly in FY 2020 and FY 2021, as commuters worked from home instead of going to an office and demand for personal and recreational travel declined. TRE ridership increased in FY 2022, and is currently at about 55% of the pre-COVID level.

As shown in Figure 2-17, monthly ridership in 2023 has been higher than the previous three fiscal years.

21 DART Reference Book (March 2018).

22 According to Bill Farquhar, TRE chief operating officer, June 2012.

Table 2-7: TRE Annual Ridership FY 1997–2023

Fiscal Year	Passenger Trips	Fiscal Year	Passenger Trips	Fiscal Year	Passenger Trips
1997	180,503	2007	2,507,705	2017	2,100,000
1998	455,514	2008	2,746,992	2018	2,000,000
1999	587,519	2009	2,789,030	2019	2,000,000
2000	688,486	2010	2,469,215	2020	1,300,000
2001	1,322,005	2011	2,425,335	2021	795,300
2002	2,134,011	2012	2,252,140	2022	1,100,000
2003	2,293,783	2013	2,092,782	2023	1,100,000
2004	2,167,788	2014	2,283,895		
2005	2,154,400	2015	2,200,000		
2006	2,154,400	2016	2,100,000		

Source: DART

Figure 2-17: TRE Monthly Ridership (FY 2020 to FY 2023)

Source: Trinity Metro

DART and Trinity Metro jointly own the former Rock Island rail corridor on which TRE operates. The cities of Dallas and Fort Worth jointly purchased the right-of-way in 1983 for $34 million from the Rock Island trustee following the freight railroad's bankruptcy.[23] Since then, the agencies have entered into trackage rights agreements to allow both BNSF and UP to operate freight trains over the TRE line. Since the corridor is part of the national freight railroad

23 http://trn.trains.com/railroads/2006/07/trinity-railway-express.

network and has shared freight and intercity passenger operations, TRE's commuter rail equipment must meet the FRA's crashworthiness standards. TRE dispatches the rail corridor, directing all passenger and freight movements, and ensures that commuter trains receive priority.

Amtrak's *Texas Eagle* long-distance train began running over the TRE corridor between Dallas and Fort Worth in 2016, shifting away from a former route using UP freight trackage. The reroute occurred after the completion of TRE's Valley View project, which added 1.4 miles of second mainline track between the West Irving and CentrePort stations, connecting two existing double-track sections. The Valley View project also included rebuilding the highway-rail grade crossing at Valley View Lane to accommodate two tracks, with quad gates to establish a quiet zone; converting a crossover to a universal interlocking with No. 20 turnouts; and replacing the single-track Bear Creek Bridge in Irving with a new double-track structure. The $15 million project was funded in part with a $7.2 million Federal Railroad Administration (FRA) grant awarded in 2009 with 50% matching local funds, and a $4.3 million grant from the Federal Transit Administration (FTA). With the project's completion, approximately 20 miles of TRE's 35-mile line was double-tracked, improving operational flexibility and increasing on-time performance. The Valley View Project also enabled TRE to complete a series of service improvements that were introduced in October 2016, among them:

- Improving morning and evening weekday rush-hour headways to 30 minutes
- Improving Saturday frequency to hourly service
- Providing hourly service during off-peak weekday hours
- Extending Friday and Saturday evening service an average of 1-2 hours
- Introducing earlier Saturday morning departures, between 5 a.m. and 6 a.m., approximately three hours earlier than previously

According to TRE, these service changes resulted in an increase in overall weekday ridership, with an approximate 20% increase in ridership on Saturdays.[24]

TRE is currently advancing several improvements that will add more sections of double track and replace bridges on the network, with funding provided by a September 2020 $25 million BUILD grant award to the North Central Texas Council of Governments (NCTCOG) for the NT MOVES project (the abbreviated name of the North Texas Multimodal Operations, Velocity, Efficiency and Safety Program). The project includes constructing 1.2 miles of double track from the Medical/Market Center station to the Stemmons Freeway railroad bridge in Dallas and replacing or rehabilitating three bridges, constructing 2.4 miles of double track from Handley Ederville Road to Precinct Line Road in Tarrant County, and implementing a rail technology called Clear Path, which enables users to exchange timely information on train movements to improve corridor fluidity, safety, and on-time performance.[25] In FY 2023, TRE's on-time performance averaged 98.3% over 12 months, and only one month fell below the performance target of 97.0%, by 0.3 percentage points.

24 https://www.dart.org/about/inmotion/may18/2.asp.

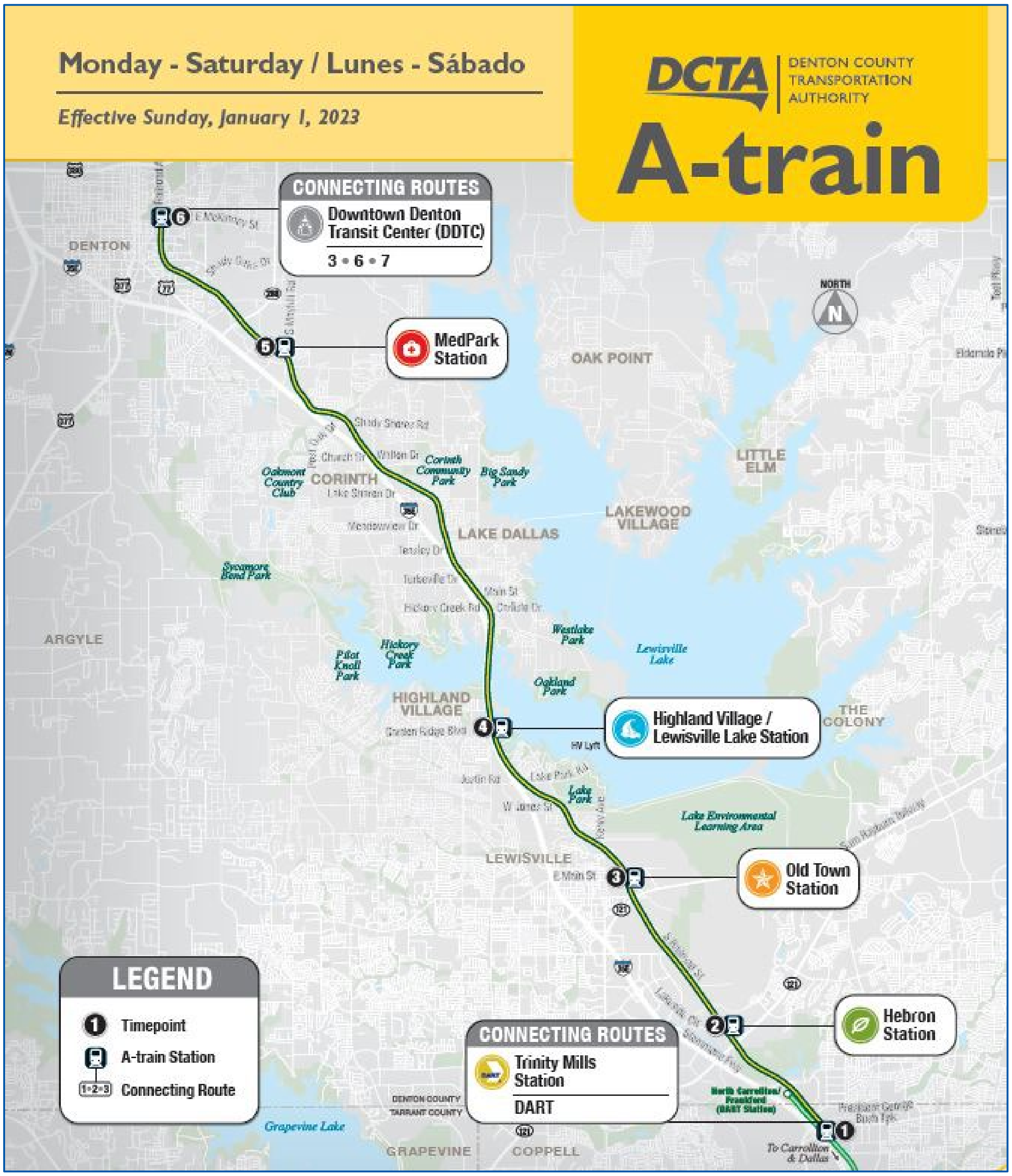
25 https://www.texasrailadvocates.org/post/n-texas-scores-25-million-fed-grant-between-dallas-fort-worth#:~:text=Texas%20scores%20%2425%20million%20fed%20rail%20grant%20between%20Dallas%20%26%20Fort%20Worth&text=A%20federal%20rail%20grant%20of,Railway%20Express%20(TRE)%20line.

Denton County Transportation Authority A-Train

The Denton County Transportation Authority (DCTA) is a coordinated county transportation authority created by House Bill 3323, under Chapter 460 of the Texas Transportation Code, approved by the 77th Texas Legislature and signed into law by the governor in 2001. On November 5, 2002, the voters in Denton County approved the formation of DCTA. The DCTA Board of Directors represents every geographic area of the county. Three cities additionally approved a 0.5% sales tax in an election in September 2003: Denton, Highland Village, and Lewisville. The current A-Train route was approved by the DCTA Board of Directors in May 2005, a draft environmental impact statement was completed in 2007, and a final EIS was completed in 2008. The North Central Texas Regional Toll Revenue Funding Initiative (RTRFI) provided 80% of the project funds. The remaining 20% of the funding came from DCTA local 0.5% sales tax revenues. The Regional Transportation Council approved the RTRFI funding in August 2008.

In summer 2010, DCTA began rehabilitating the A-Train’s freight railroad infrastructure to permit passenger service, constructing a 21-mile commuter rail line connecting Denton and Carrollton. The route generally follows the eastern side of Interstate 35 (I-35) East using existing railroad right-of-way. A-Train began service on June 18, 2011 (with revenue service commencing June 20, 2011), serving six stations (see Figure 2-18), including the Trinity Mills terminal transfer station in Carrollton, where passengers can connect to the DART Green Line to downtown Dallas.

Figure 2-18: DCTA A-Train Route Map



Source: DCTA

The system began service with DART-owned, self-propelled Rail Diesel Cars (RDCs), then in June 2012 began phasing in in its own equipment, consisting of 11 new Stadler-built, self-propelled GTW 2/6 articulated Diesel Multiple Unit (DMU) railcars (see Figure 2-19). Full integration of the Stadler GTW fleet was accomplished by December 2012, and the last RDC was returned to DART in February 2013. An FRA waiver was requested in 2009 and received June 4, 2012, which allows the Stadler DMU cars to operate in the agency's rail corridor concurrently with traditional FRA-compliant equipment. DCTA partnered with Stadler to make modifications and enhancements to the DMU cars to comply with the required safety guidelines. Modifications included changes to the fuel tank design, window glazing, passenger seats, and operator seat. The cars are ADA compliant, and seat 104 with standing room for 96 in every vehicle.

Figure 2-19: DCTA's A-Train at Trinity Mills Station

Source: DCTA

The A-Train's route was originally part of the Missouri-Kansas-Texas Railroad system, although for a brief period between 1928 and 1932, the Texas Interurban Railway Company also used the line to provide regional passenger service between Dallas and Denton. DCTA currently owns the rail line, and has an agreement to permit freight trains operated by the short line Dallas, Garland & Northeastern to use the line twice per week at night after passenger service has ended.[26]

The A-Train operates Monday through Saturday, excluding major holidays. The A-Train's Monday through Thursday weekday schedule offers 34 northbound trains and 33 southbound trains. The agency also offers an extended Friday evening service consisting of one additional northbound and one additional southbound train in operation past the regular weekday commute times. Weekday trains operate every 30 minutes in each direction throughout the day. Midday rail service was introduced on August 20, 2012. On Saturday, A-Train operates 16 northbound and 15 southbound trains, with hourly departures from each endpoint station beginning at 8:00 a.m. until a final departure at 10:00 p.m.

As shown in Table 2-8, A-Train ridership was approximately 400,000 to 500,000 passengers per year prior to the COVID-19 pandemic. In FY 2022, ridership grew to reach approximately 45% of the pre-COVID volume carried in FY 2019. The A-Train's average annual on time performance has varied between 98.17% and 99.07% for FY 2018-2022.

26 https://www.nbcdfw.com/news/local/Railroad-Crossing-Arms-Remain-Down-Minutes-on-End-With-No-Trains-in-Sight-440855793.html.

Table 2-8: DCTA A-Train Annual Ridership FY 2013–2022

Fiscal Year	Passenger Trips
2013	510,653
2014	568,338
2015	555,423
2016	545,250
2017	504,958
2018	419,335
2019	393,700
2020	221,316
2021	113,440
2022	175,637

Source: DCTA

In June 2016, DCTA signed a new long-term rail operations and maintenance contract with First Transit, Inc.[27] The contract covers a period of 9 years with an additional 5-year option and went into effect October 1, 2016. This is one of the largest contract agreements in the agency's history and the first U.S. contract for First Transit, the U.S. subsidiary of a British railway operating company. The freight railroad holding company Rio Grande Pacific Corp. provides dispatching, maintenance-of-way, and signaling services, and its signal engineering firm (CTC) has been contracted to oversee the operation and maintenance of the A-Train's signaling and positive train control systems.[28] In December 2020, DCTA received federal certification of its Enhanced Automatic Train Control (E-ATC) positive train control system in advanced of the federally mandated PTC implementation deadline.[29] Historically, DCTA has concentrated its focus on the A-Train service between Denton and Carrollton, but is currently planning an extension of the A-Train south from the Trinity Mills station to reach the Downtown Carrollton station that will be used by the new DART Silver Line commuter rail service. DCTA is also studying the feasibility of constructing a seventh station along the A-Train route in the city of Corinth.

Capital Metropolitan Transportation Authority Metro Rail

Austin's Capital Metropolitan Transportation Authority (Capital Metro) was created in accordance with Chapter 451 of the Texas Transportation Code, and established by a voter referendum on Jan. 19, 1985. The agency is funded in part by a 1% sales tax levied by its service area members: Austin, Jonestown, Lago Vista, Leander, Manor, Point Venture, San Leanna and portions of Travis County and Williamson County, including the Anderson Mill area.

On March 22, 2010, Capital Metro's 32-mile CapMetro Rail Red Line between downtown Austin and Leander opened to the public. The line, alternatively designated as Route 550, originally served nine stations, but a tenth station opened in February 2024, the McKalla station (see Figure 2-20). Approved by the voters in a 2004 referendum, the

27 FirstGroup: https://www.firstgroupplc.com/news-and-media/latest-news/2016/20-07-16.aspx.

28 https://www.progressiverailroading.com/supplier_spotlight/news/DCTA-contracts-with-First-Transit-to-operate-maintain-A-Train--48872.

29 https://www.dcta.net/media-center/news/2021/dcta-receives-positive-train-control-certification-a-train-rail-line.

Red Line operates in an existing freight corridor owned by Capital Metro, running from Llano to a connection with UP at Giddings. The portion of the line between Giddings and Austin was built in 1871 by the Houston and Texas Central Railroad, which later built westward, reaching Llano in 1892. The City of Austin purchased the line in 1986. Today, short line freight railroad Austin Western provides freight rail service over the line, at night after CapMetro Rail service ends its daily operation. Although it is a commuter rail service, Red Line trains partially run on-street in the downtown area. Herzog Transit Services is the contract operator for the service.

CapMetro Rail has a fleet of 10 self-propelled, Stadler-built GTW Diesel Multiple Unit railcars. Each train holds 108 seated passengers and approximately 100 additional standing passengers. Local connecting bus service is available at or near each station. The newly opened $60 million McKalla station is located next to Q2 Stadium, Austin's major league soccer stadium, and also serves residents and businesses in the growing North Burnet area. By late 2024 or early 2025, the Kramer station in North Austin will be replaced by a new station in the same vicinity called Broadmoor, which will serve the employers, residents, and retailers located in and around two new mixed-use developments, The Domain and Uptown ATX. The Broadmoor Station is a public-private partnership, with Capital Metro and Brandywine Realty Trust, the developers of Uptown ATX, each contributing half of the station's projected $36 million cost.[30,31] The station is planned to include two double-length covered platforms and parking spaces for more than 400 transit riders.

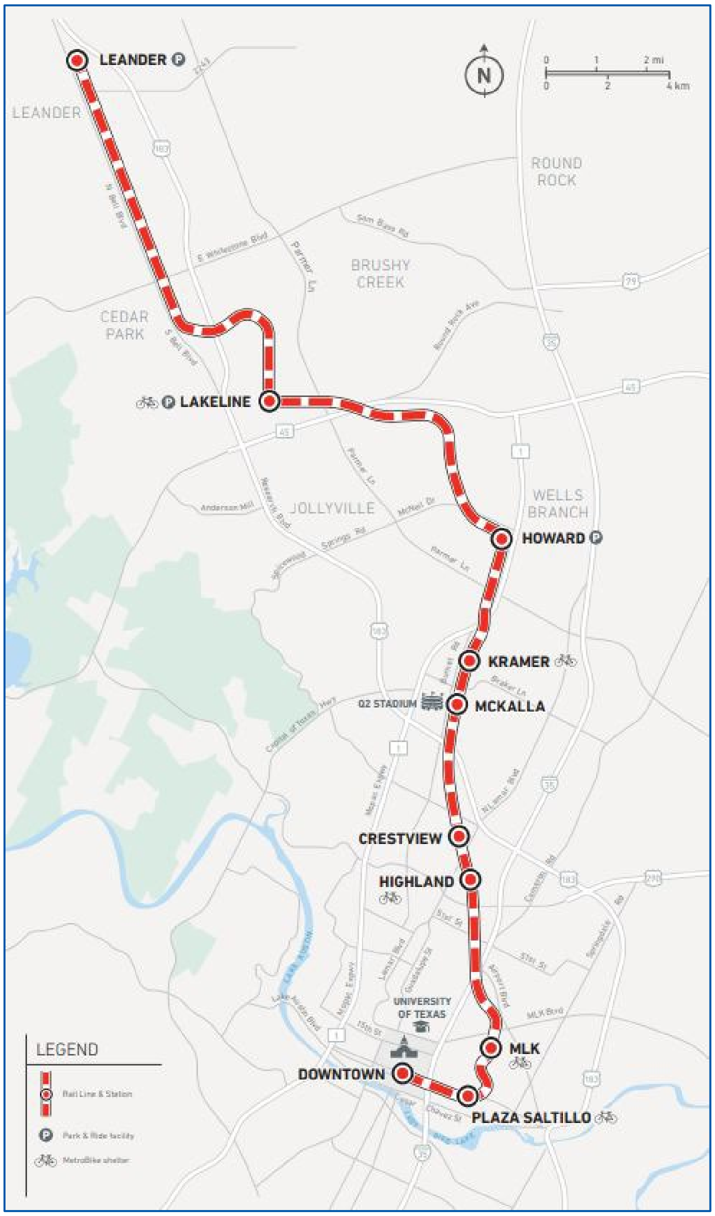
Weekday service in 2024 consists of 37 trains (17 southbound, 20 northbound) Monday through Thursday, with 10 additional trains on Friday (five each way) providing late evening service. On Saturday, 47 trains operate (23 southbound, 24 northbound). Saturday service had been suspended for more than a year between early 2020 and late May 2021 during the COVID-19 pandemic.

With grant funding from TxDOT, CapMetro rebuilt the Metro Rail Downtown station in Austin, a project completed in 2020 that included the development of all required rail- and station-related infrastructure, including a public pedestrian transit plaza within the 4th Street right-of-way and access to other modes of transportation and transit in the vicinity. CapMetro also received FRA certification of its Enhanced Automatic Train Control positive train control system on August 10, 2020. In January of 2023, CapMetro completed a double-tracking project in Leander that created approximately 15 miles of double track on the Red Line route Leander and Lakeline. The project was intended to improve service reliability and on-time performance.

30 https://communityimpact.com/austin/northwest-austin/transportation/2022/01/18/capital-metro-breaks-ground-on-metrorail-broadmoor-station-at-uptown-atx-development-in-north-austin/.

31 https://www.kxan.com/news/local/austin/capmetro-broadmoor-station-not-under-construction-despite-2022-groundbreaking/.

Figure 2-20: Capital Metro's Commuter MetroRail Route and Station Map



Source: Capital Metro

Capital Metro initially operated Red Line service only during the morning and afternoon peak weekday commuter periods, then added all-day weekday service in 2011. In March 2012, the agency began providing service on Friday and Saturday nights until midnight. For the first week of service, riding the train was free, and daily ridership estimates ranged from a low of 2,353 passenger boardings per day to a high of 2,942. When riding the train was no longer free, ridership declined. However, population growth in Austin in the past decade has increased daily weekday ridership above the inaugural week counts. In 2023, daily weekday boardings averaged 3,190, and grew in the first half of 2024 to 3,458.

Since 2013, ridership steadily increased, then fell in 2019, when significant service disruptions occurred as a result of the construction of the new Downtown Station, which required CapMetro to open a temporary replacement station, and the federally mandated implementation of positive train control, which prompted a temporary

suspension of weekend service. The COVID-19 pandemic caused a ridership drop of nearly two-thirds, although FY 2022 saw a return to higher ridership levels, with an increase of almost 85% over the previous year. Ridership in FY 2023 was approximately 65% of the pre-COVID level of 2019. Table 2-9 depicts annual ridership for FY 2013 through FY 2023. Ridership tends to peak each year in March when Austin hosts large conventions and a music festival. During those events, monthly ridership reaches over one 100,000 passengers.

Table 2-9: Capital MetroRail Red Line Annual Ridership FY 2013–2023

Fiscal Year	Passenger Trips
2013	766,858
2014	787,071
2015	792,334
2016	807,816
2017	824,703
2018	810,000
2019	730,000
2020	325,669
2021	257,000
2022	475,000
2023	475,465

Source: Capital Metro

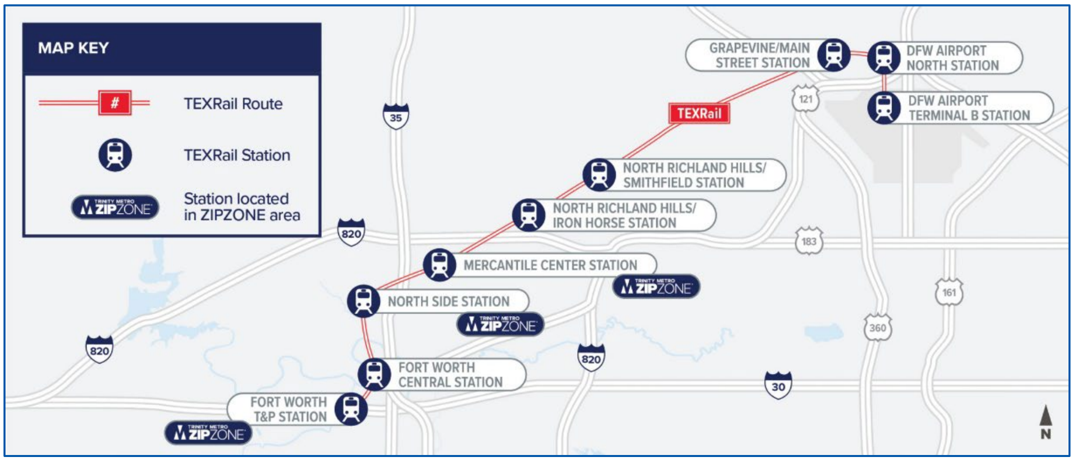
TEXRail

TEXRail is a 27-mile commuter rail line that extends from downtown Fort Worth, across northeast Tarrant County, through North Richland Hills and Grapevine, and into Dallas/Fort Worth International Airport's Terminal B (see Figure 2-21). TEXRail service began on January 10, 2019.[32] The line was projected to serve more than 8,000 daily riders at nine stations by the end of its first year of operation, and by 2035, nearly 14,000 riders are projected to ride the system. The two TEXRail stations in downtown Fort Worth are shared with TRE commuter trains. The service uses portions of a freight railroad line originally owned by the St. Louis Southwestern Railway (commonly nicknamed the Cotton Belt) that was purchased by DART in 1991 for future rail transit use.[33] The line is also used for freight rail service by short line Fort Worth & Western Railroad (FWWR), as well as tourist train operator Grapevine Vintage Railroad.

32 https://ridetrinitymetro.org/texrail/timeline/.

33 https://www.dart.org/about/history.asp.

Figure 2-21: TEXRail Line



Source: TEXRail

The fare for the 52-minute ride is $2.50, or $5 for an all-day pass. TEXRail operates on a daily service pattern, with trains running every 30 minutes during morning and evening peak travel periods and hourly at other times, The first train is scheduled to leave Fort Worth at 3:43 a.m. and the last train is scheduled to leave the airport at 12:40 a.m. Under schedules in effect in 2024, TEXRail was running 73 trains per day, 31 westbound trains and 29 eastbound trains making the entire trip between downtown Fort Worth and DFW Airport, and other trains operating only between downtown Fort Worth and the North Side station, or between DFW Airport and the Mercantile Center station. TEXRail service is operated with a fleet of eight Stadler-built, self-propelled FLIRT (Fast Light Innovative Regional Train) Diesel Multiple Unit trainsets.[34] Each four-car, articulated trainset has 229 seats and a total capacity of 488 passengers. In FY 2023, TEXRail's on-time performance averaged 98.3%, above the performance target of 98.0%.

The line, known as the Cotton Belt corridor, was identified in September 1997 as a future transportation improvement corridor in Tarrant County, in a Mobility 2020 presentation.[35] The 65-mile corridor extended from Plano past DFW Airport to downtown Fort Worth. In 2005, the North Central Texas Council of Governments (NCTCOG) produced a comprehensive Regional Rail Corridor Study in partnership with DART, Trinity Metro (then known as Fort Worth Transportation Authority, or FWTA), and DCTA. The study's goal was to provide data and recommendations to decision makers on the best way to implement expanded passenger rail and other transit services in 11 corridors around the Dallas/Fort Worth region. The FWTA Board of Directors in August 2013 approved construction of the first phase of the Cotton Belt corridor's development, the TEXRail system, which uses 27 miles of the western segment of the Cotton Belt corridor between downtown Fort Worth and DFW Airport. TEXRail construction began after the August 2016 groundbreaking. Nonrevenue operational tests began in March 2018. Startup costs for the system totaled approximately $1.034 billion,[36] with local sources providing more than half the funding, supplemented by $499.39 million in Section 5309 New Starts federal funds.[37]

34 Fast Light Innovative Regional Train Diesel Multiple Units.

35 Trinity Metro: https://ridetrinitymetro.org/texrail/timeline/.

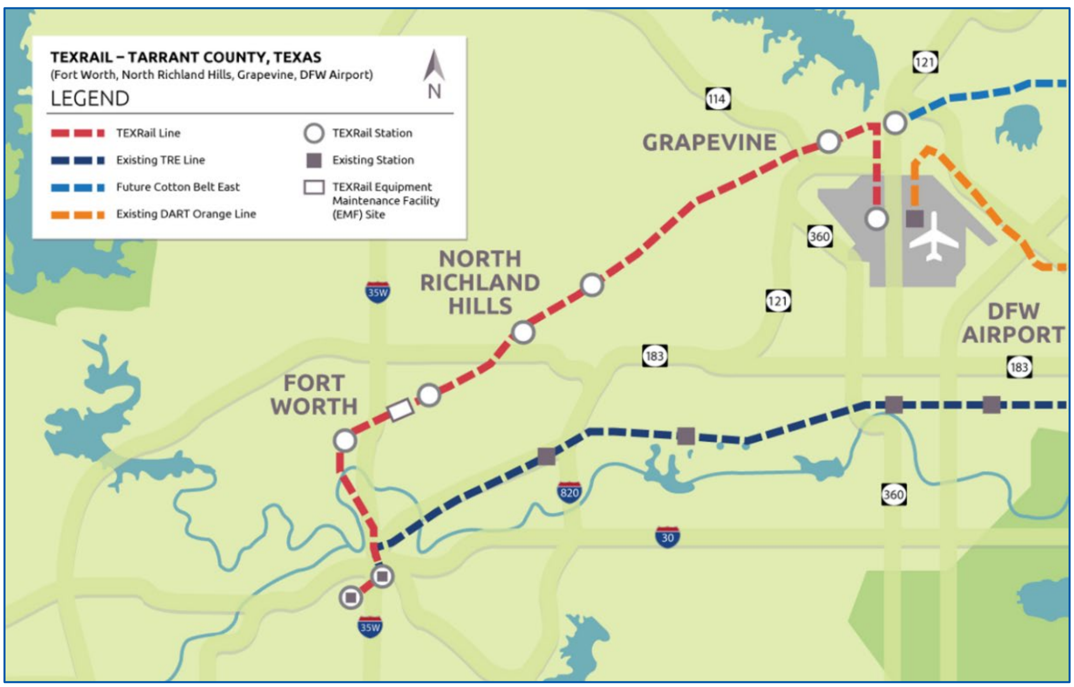
36 https://ridetrinitymetro.org/wp-content/uploads/2022/03/FY22-Business-Plan-and-Annual-Budget.pdf.

37 https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/TX_Ft_Worth_TEX_Rail_Profile-FINAL.pdf.

Trinity Metro is currently constructing a 2.1-mile addition to the TEXRail system that will extend the route from the Fort Worth T&P Station to a new eastern terminus in the Fort Worth Medical District called the Near Southside Station. The new station will be located in close proximity to the Baylor Scott & White All Saints Medical Center, the Cook Children's Medical Center, and other independent medical clinics. The extension has an estimated project cost of approximately $179 million,[38] with funding provided by the City of Fort Worth, Trinity Metro, and federal programs.[39] Construction is expected to start in 2024, with revenue service projected to begin sometime in 2026.

TEXRail trains connect with Trinity Railway Express commuter trains and Amtrak intercity passenger trains at Fort Worth Central Station. DFW Airport is served by both TEXRail commuter trains at Terminal B and DART Orange Line light trains to downtown Dallas at Terminal A (see Figure 2-22). In the future, TEXRail will connect with another commuter rail service currently under development by DART that will use 26 miles of the eastern segment of the Cotton Belt corridor between DFW Airport Terminal B and Shiloh Road in Plano. In 2019, DART announced it would operate the future commuter rail service as the Silver Line. Like TEXRail, DART's planned Silver Line commuter service will use Diesel Multiple Unit trainsets. At the time of this writing, service is projected to begin in late 2025 or early 2026. See Chapter 3 for more information about the DART Silver Line service on the Cotton Belt Corridor.

Figure 2-22: TEXRail Line in Relation to Other Rail Lines



Source: TEXRail

Table 2-10 depicts annual ridership for FY 2019 through FY 2023. During TEXRail's first month of service, free rides were offered to introduce the service to the public, after which ridership stabilized and began to increase steadily month over month. The COVID-19 pandemic caused ridership to decline in FY 2020 and FY 2021. TEXRail boarding provided 304,545 passenger trips. Ridership began rebounding in 2022 and 2023, exceeding its pre-COVID level,

38 https://www.hvj.com/blog/project-announcement-texrail-extension-project.

39 https://communityimpact.com/dallas-fort-worth/grapevine-colleyville-southlake/development/2024/02/23/texrail-expansion-to-bring-economic-growth-to-grapevine/.

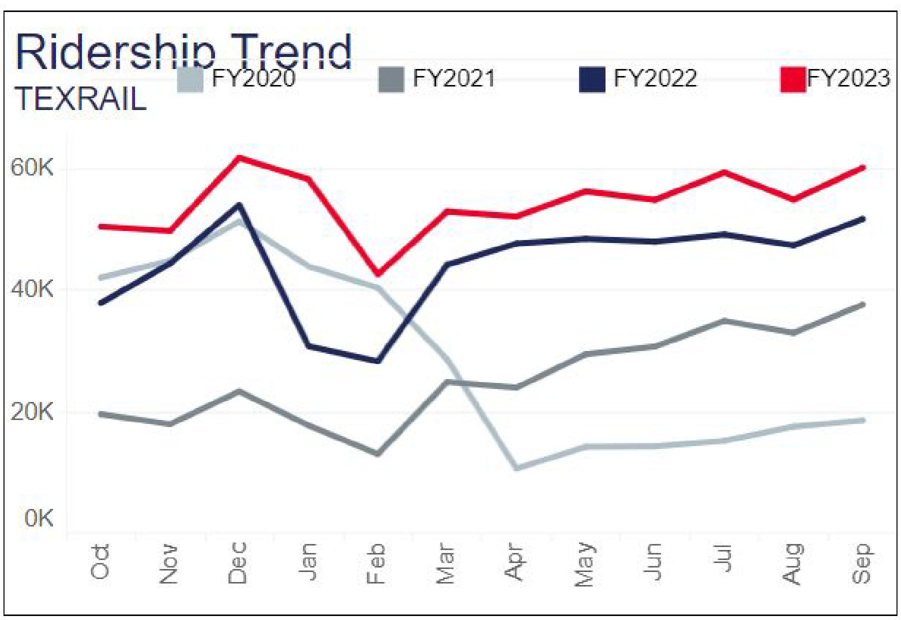
and continues to do so. Every month in FY 2023 had higher ridership than the same months the previous year.[40] The investment in transit-oriented development around TEXRail stations has contributed to the system's significant ridership gains. By the North Richland Hills/Iron Horse station and North Richland Hills/Smithfield station, $137 million in transit-oriented development has occurred, including residential and commercial developments, and a $105 million transit-oriented development project in Grapevine included a hotel, a food and entertainment destination called Harvest Hall, and a public parking garage.[41] Two of TEXRail's highest monthly ridership numbers occurred in late 2023: 83,071 rides in November (a 67% increase over November 2022) and 82,492 in December (a 34% increase over December 2022). Saturday is the highest ridership day on the system, primarily owing to high Saturday travel demand between the Grapevine/Main station and downtown Fort Worth. As shown in Figure 2-23, monthly ridership in 2023 has been higher than the previous three years.

Table 2-10: TEXRail Annual Ridership FY 2019–2023

Fiscal Year	Passenger Trips
2019	407,444
2020	340,008
2021	304,545
2022	530,482
2023	652,195

Source: Trinity Metro

Figure 2-23: TEXRail Monthly Ridership (FY 2020 to FY 2023)



Source: Trinity Metro

40 https://ridetrinitymetro.org/texrail-celebrates-five-years-of-service-on-jan-10/

41 https://ridetrinitymetro.org/texrail-celebrates-five-years-of-service-on-jan-10/.

Light Rail Services

Light rail transit (LRT) services in Texas are provided in Dallas by Dallas Area Rapid Transit (DART), and in Houston by the Metropolitan Transit Authority of Harris County (METRO). Each transit agency is directly responsible for the operation of the service.

Dallas Area Rapid Transit

Current Service

Dallas Area Rapid Transit (DART) DART initiated light rail transit operations on June 14, 1996, with the opening of an 11-mile segment of the 20-mile Starter System. In FY 2023, DART operated over a system of 93 miles with 65 stations. Ridership has reached 20.5 million passenger trips per year.[42]

DART's LRT system is comprised of four routes known as the Red, Blue, Green, and Orange Lines, which together form the longest light rail system in the country. The Red Line follows the North Central Expressway from Plano to downtown Dallas, then west to West Oak Cliff. The Blue Line heads west and south from the cities of Rowlett and Garland to downtown Dallas, then continues south to serve the University of North Texas at Dallas (UNT Dallas) in South Oak Cliff. The Green Line links North Carrollton/Frankford with Buckner in South Dallas. The V-shaped Orange Line provides service between Plano and the Dallas/Fort Worth (DFW) Airport Station by way of downtown Dallas during weekday peak periods, and at all other times operates between the LBJ/Central station and DFW Airport Station through downtown. Hours of operation are approximately 4 a.m. to 1 a.m.

Figure 2-24 provides a map of the DART light rail system, as well as connecting services such as the Trinity Railway Express (TRE) and Denton County Transportation Authority's A-Train commuter rail lines. DART's LRT system operates in a right-of-way separated from freight traffic, with short sections running in city streets.

42 DART Reference Book, March 2024.

Figure 2-24: DART Rail System Map (February 2024)

Source: DART

Table 2-11 provides a history of the DART LRT development.

Table 2-11: History of DART LRT Development

Service Initiation Date	Service Description
June 14, 1996	DART Rail opens with 11.2 miles of service: • Red Line service from Pearl to Westmoreland Stations. • Blue Line Service from Pearl to Illinois Stations.
January 1997	DART extends 6 miles northward parallel to North Central Expressway (Pearl to Park Lane Stations; includes a 3.5-mile subway from downtown Dallas to the new Mockingbird Station.
May 31, 1997	DART completes the 20-mile Starter System with the opening of the 3-mile extension of the Blue Line south from Illinois Station to Ledbetter Station.
December 18, 2000	Cityplace Station, the Southwest's first subway station, opened 120-feet underneath North Central Expressway.
September 24, 2001	White Rock Station opens, 3 miles northeast of Mockingbird Station.
May 6, 2002	LBJ/Skillman Station opens, 3.5 miles north of White Rock Station.
July 1, 2002	7 new stations (Park Lane, Walnut Hill, Forest Lane, LBJ/Central, Spring Valley, Arapaho Center, and Galatyn Park) open, extending the Red Line more than 9 miles.
November 18, 2002	2 new stations (Forest/Jupiter and Downtown Garland) extend the Blue Line more than 4 miles.
December 9, 2002	3 stations (Bush Turnpike, Downtown Plano, and Parker Road) open, bringing the system to a total of 44 miles and 34 stations.
November 2004	Special event service becomes available to Victory Station at American Airlines Center (AAC).
September 14, 2009	3 miles and 4 stations (Deep Ellum, Baylor University Medical Center, Fair Park, and MLK Jr. in South Dallas) of the Green Line go into service, as well as daily service to Victory Station.
December 6, 2010	The 28-mile, 20-station $1.8 billion Green Line is completed when it opens 24 miles and 15 stations; also going into service is the Lake Highlands Station, DART's first infill station on the Blue Line. [In June 2011, the Denton County Transportation Authority's A-Train commuter rail service allows passengers to transfer to the Green Line at the Trinity Mills Station in Carrollton.]
July 30, 2012	A 5.4 mile segment of the Orange Line initiates service at 3 stations (University of Dallas, Las Colinas Urban Center, and Irving Convention Center).
December 3, 2012	A 3.9 mile addition to the Orange Line opens, including 2 stations (North Lake College and Belt Line).
December 3, 2012	A 4.5 mile addition to the Blue Line is completed from Garland to Rowlett, including 1 station in downtown Rowlett.
August 18, 2014	A 4.7-mile addition to the Orange Line extending service to Terminal A at Dallas-Fort Worth International Airport opens.
September 2015	The Dallas City Council and DART Board of Directors approved a proposed preferred alignment for the second downtown Dallas light rail alignment.

Service Initiation Date	Service Description
October 24, 2016	A 2.6-mile extension of the Blue Line south from Ledbetter Station to the UNT-Dallas Campus opens, including two new stations and rehabilitation and improvements to the existing Ledbetter Station to accommodate the extension.
September 2017	DART Board of Directors approved the D2 Subway Commerce/Victory/Swiss alignment as the Locally Preferred Alternative (LPA) at their September 26, 2017 meeting. (The Dallas City Council had previously approved the LPA on September 13, 2017.) Also on September 26, the DART Board approved a budget and 20-year financial plan for the Cotton Belt and D2 projects.
2018	DART added new features to its GoPass® app (one of the first transit payment apps when it was launched in 2013), including the ability to track trains and buses in real-time and the option to load value with cash at hundreds of area retailers. DART also introduced fare capping to make riding easier and cheaper. By using the GoPass® mobile app or GoPass® Tap card, riders will never spend more than the total cost of a day pass ($6.00) in a single day, or the total cost of a monthly pass ($96.00) in a calendar month.
September 19, 2019	Five groundbreaking events were held to kick off construction of the Silver Line Regional Rail project in the Cotton Belt Corridor.
October 19, 2020	DART restored 90% of pre-pandemic service levels, following temporary service adjustments that were instituted beginning April 6, 2020, in response to the novel coronavirus (COVID-19) pandemic.
April 9, 2021	DART celebrated the opening of the Hidden Ridge Station at Carpenter Ranch in Irving, the 65th station in the DART network. Developed in partnership with the City of Irving and Verizon Communications, the new station is located on the Orange Line between North Lake College and Irving Convention Center stations.
2022	DART launched a new pilot program to increase its commitment to providing a safe and clean transit experience for riders. The DART Clean Team Initiative utilizes on-board contract cleaning personnel from United Community of Faith to remove trash and debris aboard DART light rail vehicles.
April 2022	The Red/Blue Line Platform Extensions (RBPE) project was completed. This project added passenger carrying capacity by allowing for three-car train operations system-wide. Five stations were also fully raised, eliminating the need for mini-level boarding areas aligned with the low-floor section of the DART light rail vehicles.
July 2023	DART announced the addition of more than 100 contract Transit Security Officers (TSOs) to improve public safety and security for DART commuters. The TSOs joined the agency's 252 budgeted DART Police Officers and Fare Enforcement Officers that help provide a safe and secure experience for riders.

DART operates a fleet of 163 Kinkisharyo articulated Super Light Rail Vehicles (SLRV), with seating for 94 passengers. The 3-car "Super" vehicles were placed in service between 2008 and 2010, and were developed by inserting a low-floor center section at the articulation point of the original 2-car vehicles. The expansion added capacity and also provided level boarding, enabling passengers with disabilities, strollers, and bicycles to step or roll directly onto the trains at designated low-floor sections without using mechanical lifts.

In 2022, DART completed the Red and Blue Line Platform Extension project, which modified 28 stations on the Red and Blue lines to accommodate 3-car trains. (All DART light rail stations built since 2004 have platforms that can accommodate 3-car trains.) Five of the platforms were fully raised as part of the project. The $129 million project was completed under budget. In February 2023, the Federal Transit administration approved $4.6 million for DART to use toward raising the remaining 23 platforms that were lengthened in the extension project; DART will match the FTA funds with $5.2 million.

The LRT system operates with a 15-minute peak headway. Midday and evening headways are at 20 or 30-minute levels.[43] DART light rail ridership has been on a generally upward trend through the 2010s, then fell off during the COVID-19 pandemic. Light rail service was temporarily reduced beginning in April 2020, in response to the pandemic, and was fully restored in January 2022. By FY 2023, weekend ridership had reached 96% of the pre-COVID number of riders carried in FY 2019, while weekday ridership reached 66% of the pre-COVID level in 2019. Table 2-12 shows the annual ridership during the last five fiscal years.

Table 2-12: DART Light Rail Annual Ridership, FY 2019–2023

Ridership	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Annual Total	28,340,000	20,081,000	14,487,200	17,676,000	20,495,400
Weekday Average	92,700	62,600	44,600	54,700	61,780
Saturday Average	51,600	42,100	33,600	41,600	48,380
Sunday Average	38,600	33,400	28,300	33,000	38,570

Source: DART Reference Books (March 2022, 2023, 2024)

Planned Improvements

To address rapid population growth and new mobility trends, DART adopted the 2045 Transit System Plan as an update to its prior 2030 long-range plan. The North Texas region is projected to add nearly 4 million new residents and approximately 2.2 million jobs by the year 2045. At the same time, the mobility landscape is changing with new technology and innovative services. The 2045 Transit System Plan will shape DART's new mobility future through strategic improvements and investments to create a more accessible and reliable system. Most of the original DART system envisioned in 1983 is built or planned to be in operation soon. As a result, the 2045 plan will focus on maintaining and enhancing investments to improve the rider experience, while strategically targeting new investments and leveraging transit-oriented land uses and supportive city infrastructure improvements to promote a more accessible region.[44] Rail-related initiatives. grouped around five central goals, are shown in Table 2-13.

43 DART Reference Book, March 2018.

44 https://www.dart.org/docs/default-source/expansion/dart_tsp2045_2022_final.pdf.

Table 2-13: DART 2045 Transit System Plan Rail-Related Initiatives

Goal	Action
Rider Experience	• Enhance pedestrian access to rail stations. • Strengthen riders' sense of safety and security at rail stations and continue improving perceptions of safety and security on rail vehicles, in collaboration with DART Police and Service Area cities.
Mobility and Innovation	• Continue to enhance GoPass™ and other tools with innovative features to enhance customer information.
Service and Expansion (light rail)	• Develop a Rail Facilities Master Pan to document and program infrastructure and facility changes to address fleet expansion, emerging technology, and full level boarding light rail vehicles. • Select the most compatible, level-boarding light rail vehicles for future fleet replacement program. • Implement a complementary bus and rail network with 15-minute, all day frequencies for Core Frequent Network when financially feasible. • Complete an assessment of regional rail rights-of-way to identify strategic opportunities for usage rights or acquisition. Incorporate recommended right-of-way acquisitions into the 20-Year Financial Plan to preserve future rail expansion and/or bus rapid transit opportunities.
Service and Expansion (Trinity Railway Express)	• Purchase new commuter trains to replace TRE fleet that address ridership needs and create opportunities for regional vehicle compatibility. • Coordinate with Trinity Metro on options to double-track or triple-track TRE corridor to support more commuter/freight service and potential higher speed rail. • Identify and prioritize TRE service improvements, including potential Sunday service.
Service and Expansion (Silver Line)	• Monitor Silver Line ridership and recommend an appropriate timeframe for improved service levels to meet the needs of riders. • Develop agreements with Trinity Metro and program required infrastructure improvements to provide Silver Line "through" service from Plano to Fort Worth. • Develop marketing plan to drive ridership on both TRE and Silver Line corridors.
Land Use and Economic Development	• Increase transit ridership through coordinated land use planning and quality development. • Enhance the value of DART property and assets by designing transit facilities to accommodate future transit-oriented development.
Collaboration	• Ensure DART interests are reflected in regional and state transportation plans and efforts. • Work with Texas Central Railway, NCTCOG, and the City of Dallas to define Houston-Dallas High Speed Rail Multimodal Transportation Facility (MTF) connections.

DART is currently developing the engineering plans and environmental documentation for a new infill station along the Orange Line in Irving at Loop 12, in coordination with the City of Irving. The station will be funded by external contributions and will provide access to future land use development in the area. The station has a projected cost of $20 million and a projected implementation date of 2028.

In addition, the 26-mile Silver Line Regional Rail Project linking DFW Airport and Plano is under construction, and DART is undertaking a Systemwide Modernization Program to support operations, reliability, state of good repair needs, and the customer experience. The Systemwide Modernization Program has several elements including replacement of the oldest vehicles to state-of-the-art low-floor vehicles, full raise of the remaining platforms, modifications to operating facilities for new vehicles, and a unified signal system to address technology obsolescence and enhance reliability and communications. Resiliency studies are also underway to determine necessary investments to address extreme weather events. Key elements of the vehicle replacement area of the program include:

- Replace the 95 oldest LRVs with state-of-the-art low-floor vehicles to improve the customer experience, and outline a program to replace entire fleet by 2040.
- Replace 11 aging TRE locomotives with Tier IV EPA low emission engines and complete overhauls of coach and cab cars in collaboration with Trinity Metro.

The Dallas Central Business District Second Light Rail Alignment, known as the D2 Subway project, was deferred from the DART FY24 20-Year Financial Plan by the DART Board of Directors in January 2024, owing to post-pandemic changes in ridership and travel patterns. The project would create a second light rail line through downtown Dallas on a grade-separated below-ground alignment The existing downtown light rail line is the at-grade Bryan-Pacific Transit Mall.

One of the main purposes of the D2 Subway project was to address the anticipated growth in peak period demand to and through downtown Dallas, by creating additional system capacity to improve light rail reliability and passenger travel. However, post-pandemic work-from-home trends, the growth of regional employment centers outside of downtown Dallas, and the evolution of downtown Dallas into a more mixed-use neighborhood led DART to defer the D2 Subway project. Under the Red and Blue Line Platform Extensions project completed in 2022, DART can now operate longer trains systemwide to address ridership growth. Load monitoring and scenario planning efforts will determine the timing and need for capacity improvements.

DART is also supporting the City of Dallas as it advances the Dallas Streetcar Central Link to connect the Union Station/Convention Center area to the McKinney Avenue Trolley in uptown near Klyde Warren Park.

Metropolitan Transit Authority of Harris County (METRORail)

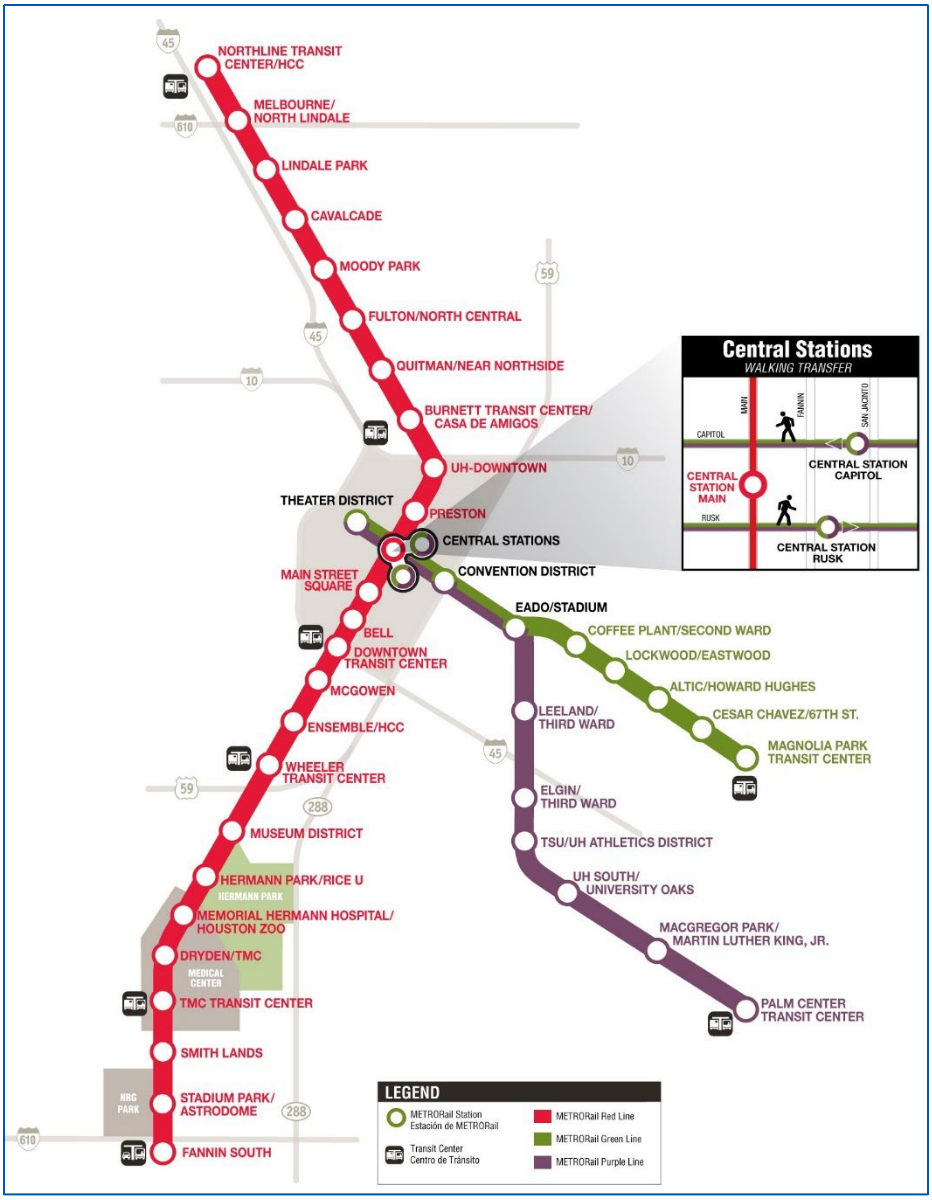
Current Service

The Metropolitan Transit Authority of Harris County (METRO) operates three light rail lines on a 22.5-mile system with 41 stations and 76 light rail vehicles.[45] METRO's Siemens-built S70 light rail vehicles run on the original Red

45 METRO: https://www.ridemetro.org/Pages/AboutMETRO.aspx.

Line only, while newer vehicles built by CAF USA run throughout the entire METRORail system. Figure 2-25 shows the METRORail system's route map.

Figure 2-25: Houston METRORail Route Map



Source: METRO

The original 7.5-mile Red Line opened in January 2004 and provides service from the University of Houston-Downtown campus, through downtown, Midtown, the Museum District, the Texas Medical Center (TMC), and Reliant Park. In December of 2013, the Red Line was extended 5.3 miles northward from the University of Houston—Downtown Campus to the Northline Commons Mall. Today's 12.6-mile Red Line has 25 stations and carries 40,000 passengers daily, making it one of the nation's most traveled lines, based on boardings per track mile.[46]

46 https://www.houstontx.gov/abouthouston/lightrail.html.

The Purple Line (6.7 miles) and the Green Line (3.2 miles) opened in May 2015. The Green Line runs from downtown Houston's Theatre District Station eastward along Harrisburg Boulevard to the Magnolia Park Transit Center and has nine stations. The Purple Line runs from the Theatre District Station south and southeast past Texas Southern University and the University of Houston to the Palm Center Transit Center and has 10 stations. The Purple and Green Lines share a track segment that includes four stops between the Theatre District Station in downtown and the Dynamo Stadium in east Downtown. To improve safety, and reliability, and increase speeds, the lines are built in semi-exclusive or limited access diamond lanes along most of the in-street route and have priority signalization at intersections. There are eight transit centers located along the METRORail system.

As detailed in Table 2-14, systemwide METRORail ridership in 2023 for an average weekday, Saturday, and Sunday, has reached approximately 73% of the pre-pandemic volume carried on weekdays, whereas Saturday ridership in 2023 reached 98% of 2019 volumes and Sunday ridership in 2023 reached 95% of 2019 volumes.[47]

Table 2-14: Average Weekday, Saturday, and Sunday Ridership, 2019–2023

Averages	September 2019	September 2020	September 2021	September 2022	September 2023
Weekday	65,020	28,515	34,996	44,693	47,650
Saturday	30,151	15,970	18,248	22,583	29,557
Sunday	24,430	14,153	16,587	19,755	23,271

Source: METRO

Planned Improvements

In 2019, Houston-area voters approved the METRONext Moving Forward Plan. The plan is intended to meet the increase in travel resulting from Houston's growing population by enhancing public transit options and reducing traffic congestion. The plan includes new rail and bus services, accessibility improvements and system-wide enhancements to provide more efficient and reliable transit solutions without increasing taxes. Project-related construction is actively taking place. Funding for the $7.5 billion plan will come from $3.5 billion in bonding authority, with federal grants and local funding providing the rest. The plan calls expanding the METRORail Light Rail Transit system to serve more people and places.[48] Specific projects include:

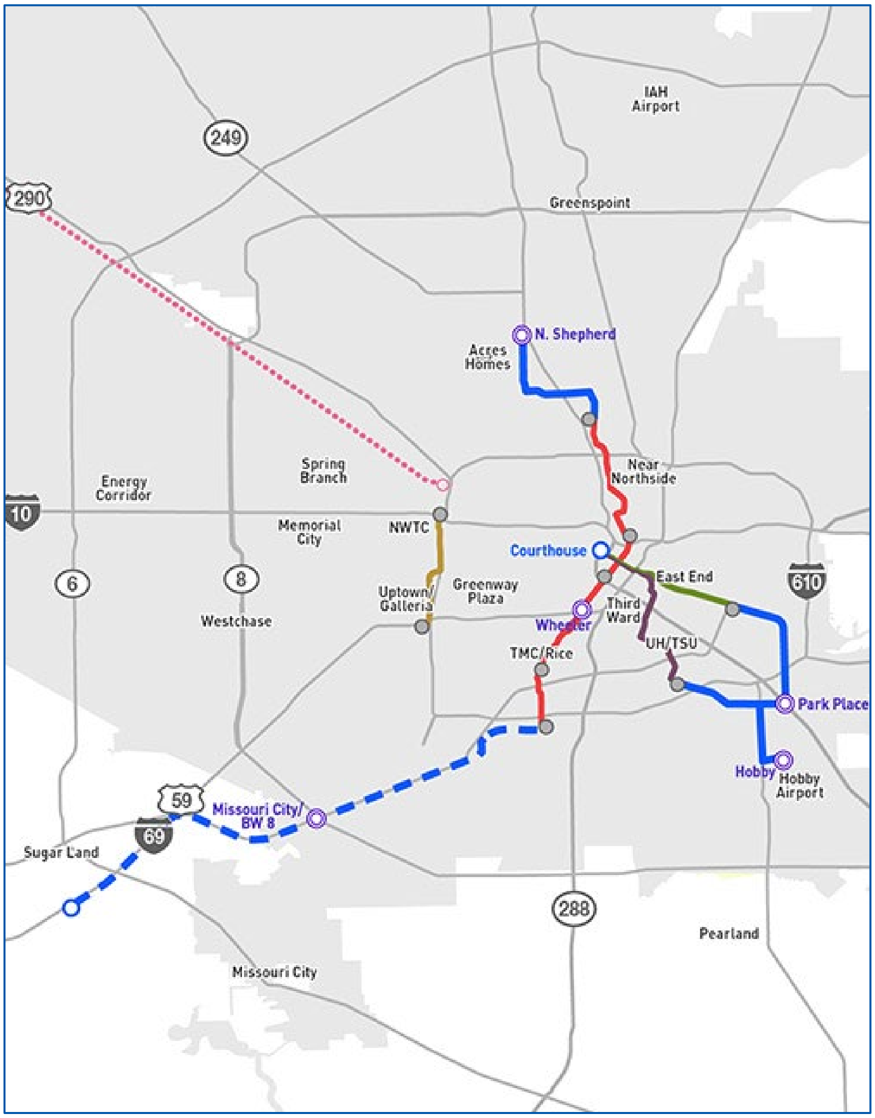
- An extension of the Red Line northwest to a new multimodal center at the North Shepherd Park & Ride with connections to METRORapid (bus rapid transit), Regional Express Network uses, and local bus routes.
- Extensions of the Green and Purple line routes eastward to a location where the lines will rejoin to serve Hobby Airport in the southeast.
- An extension of the existing combined Green and Purple west of Downtown to the City of Houston Municipal Courthouse.

47 METRO: https://www.ridemetro.org/about/records-reports/ridership-reports. Compared for averages in Septembers.

48 https://www.ridemetro.org/about/metronext/moving-forward-plan.

The plan’s light rail extensions are shown as solid blue lines on the map in Figure 2-26. These lines do not depict the final routes, which will be determined through an alternatives analysis and extensive community involvement. The dashed blue line depicts a potential future METRORail partnership.

Figure 2-26: METRORail Expansion Plan



Source: METRO

Trolley and Streetcar Services

Trolleys and streetcars provide short-trip urban circulation. Three cities in Texas currently operate four different streetcar or trolley services. A streetcar or trolley typically refers to a single-unit electric vehicle that operates over fixed rails. The track can be located in an active roadway shared with automobile traffic or along a separate right-of-way. A trolley vehicle is typically a vintage rail car or historic replica. The El Paso Streetcar and the McKinney Avenue Trolley in Dallas are two examples. A streetcar is another term that can be used interchangeably to describe the same vehicle. However, the term streetcar has been used more often in the last decade to refer to a modern multi-section articulated vehicle. Dallas and Galveston operate modern streetcars.

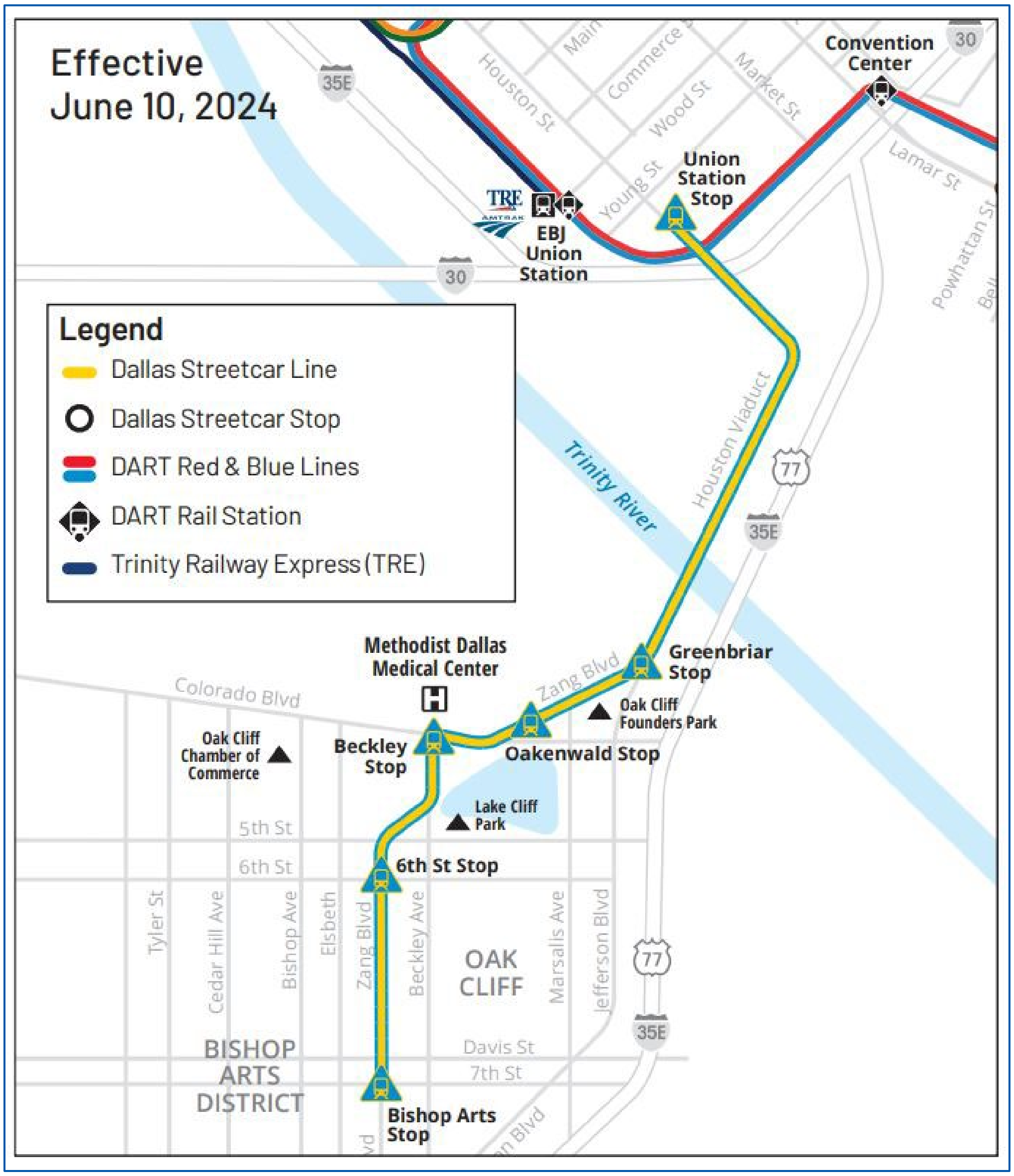
Dallas Streetcar

The Dallas Streetcar is a 2.45-mile modern streetcar line with six stations located between Union Station and the Bishops Arts District, with a dedicated lane over the Houston Street Viaduct. The system is owned by the City of Dallas but operated and maintained by DART. The system uses a fleet of four dual-mode vehicles from Brookville Equipment Corporation, capable of operating with or without overhead electrified wire, and features level boarding and a seating capacity of 34 passengers. The streetcars use a battery energy storage system to power the car's four traction motors when operating without overhead wire. Approximately 1 mile of the line's track requires battery power, allowing the vehicles to cross the Houston Street Viaduct over the Trinity River without use of an overhead catenary system.

The streetcar service begins at 5:30 a.m. and ends at midnight, Trains operate every 20 minutes. The one-way fare is $1.00. The Union Station stop enables streetcar riders to make connections with DART light rail trains, Trinity Railway Express commuter trains, and Amtrak intercity passenger trains. The initial 1.6 mile mostly single-track line from Union Station to Beckley opened in April 2015. In August 2016, the 0.75-mile dual-track extension opened accessing the Bishop Arts District.[49] Figure 2-27 shows a map of the current system.

49 DART: Reference Book (March 2024).

Figure 2-27: Dallas Streetcar Route Map



Source: DART

McKinney Avenue Trolley or M-Line

The McKinney Avenue Transportation Authority (MATA) operates fare-free, air-conditioned, restored vintage trolleys every day of the year in Dallas' Uptown Neighborhood (see Figure 2-28). The service began in July 1989 as a tourist attraction but is now integrated with the other transit services offered by DART and referred to as the "M-Line."

Figure 2-28: McKinney Avenue Trolley Route Map

Source: MATA

The system has been expanded several times since its opening. In May 2002, an extension at the north end established a new transfer point between the M-Line trolley and DART light rail at the Cityplace/Uptown Station. That same year, fare-free service was introduced. In 2015, the 0.65-mile Olive Street extension opened at the south end, creating a reverse loop, expanding the service farther into downtown Dallas, and establishing a connection to DART's St. Paul light rail station. The current round-trip route is 5.2 miles. The M-Line service is free and operates

approximately every 20 minutes using three streetcars. Operating expenses are paid by a variety of sources, including an agreement with DART, contributions from the Uptown Dallas, Inc. and Downtown Dallas, Inc. public improvement districts, advertising, endowments, public donations, charters/special events, and membership fees. MATA owns seven historic streetcars, four of which are in service and were built between 1909 and 1926.[50]

Future Dallas Streetcar Links

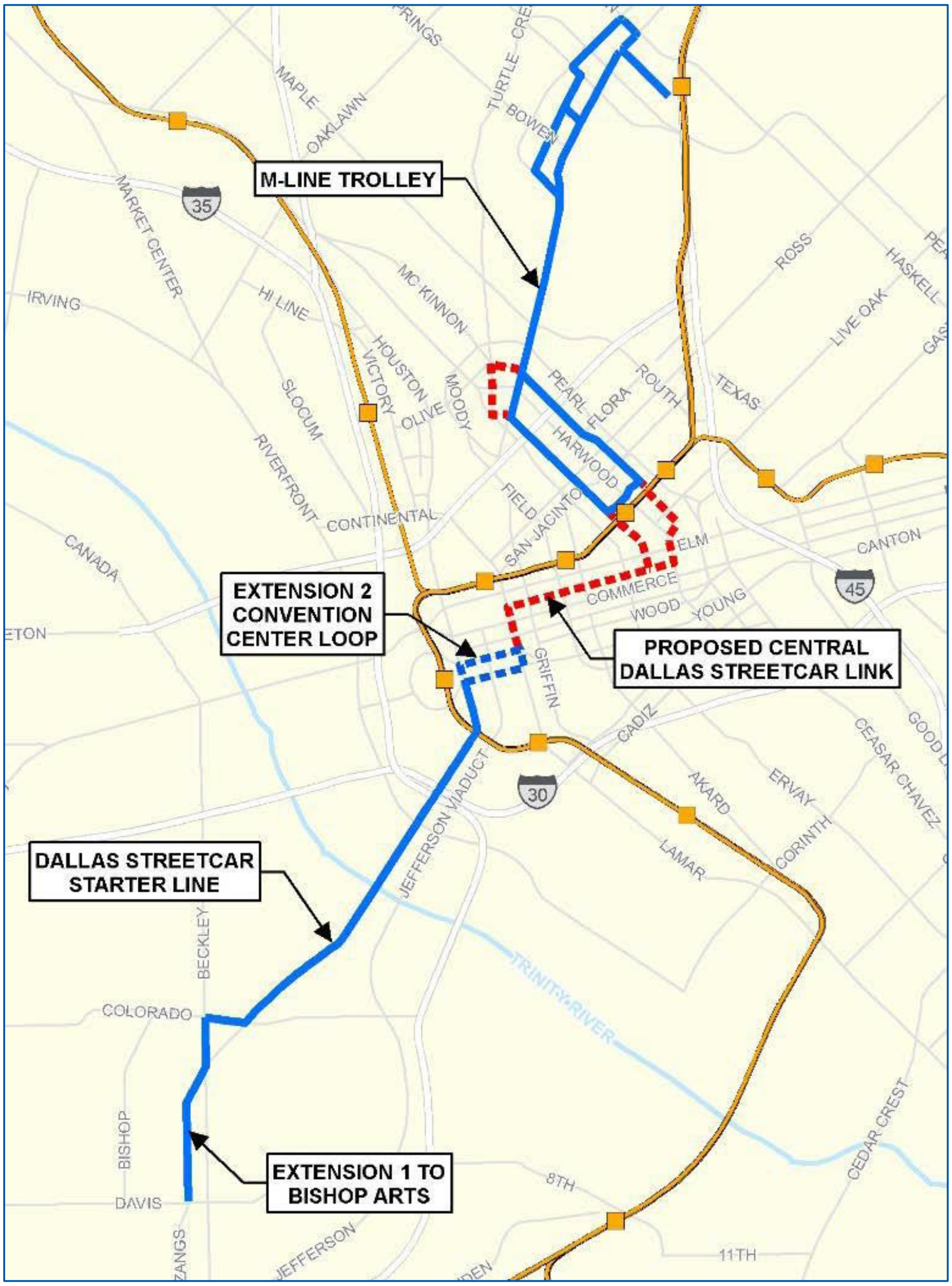
Two additional projects underway will eventually link the historic McKinney Avenue Trolley with the modern Dallas Streetcar system. The Convention Center Loop will extend the Dallas Streetcar north of Union Station to the Kay Bailey Hutchison Convention Center. The Dallas Streetcar Central Link will create an additional extension from the convention center through the core of downtown Dallas to connect with the McKinley Avenue Trolley at Federal Street.

Convention Center Loop. This planned extension of the Dallas Streetcar in downtown Dallas proposes constructing a single-track loop along Young, Lamar, Wood, and Houston Streets. The Loop is currently under design and would include two new streetcar stops: Convention Center Hotel on Young/Lamar, and Wood/Market Streets. The City of Dallas is exploring an early implementation of the segment from Houston to Lamar to serve the Omni Hotel. The remainder of the Loop could be integrated into the Central Link project design.

Dallas Streetcar Central Link. This project will extend the Dallas Streetcar from the Union Station area through the core of downtown Dallas to the historic M-Line (see Figure 2-29). DART and the City completed a supplemental Alternatives Analysis in 2017. The City of Dallas selected an Elm-Commerce couplet as the preferred route in September 2017, but directed staff to continue to consider Main and Young Streets as options. Prior to DART submitting a request for entry into Project Development under the FTA Small Starts program, the City of Dallas is exploring possible sources for operations & maintenance funding and conducting additional planning studies. The DART FY 2023 Financial Plan assumes $48 million in FTA grant funding for the project, which has an estimated cost of $96.2 million.

50 https://www.mata.org/.

Figure 2-29: Dallas Streetcar Lines and Extensions



Source: City of Dallas, Dallas Streetcar Central Link Locally Preferred Alternative Selection, August 28, 2017.[51]

El Paso Streetcar

The El Paso streetcar system links the International Bridges, downtown retail areas, convention center, ballpark, Cincinnati Entertainment District, and the University of Texas at El Paso. The system consists of approximately 4.8

51 http://dallascityhall.com/government/Council%20Meeting%20Documents/msis_2_dallas-streetcar-central-link-locally-preferred-alternative-selection_briefing_082817.pdf.

miles of track, 27 streetcar stops, related street improvements, traction power system, and a vehicle maintenance and storage facility near the existing Sun Metro Downtown Transfer Center (see Figure 2-30).

The Camino Real Regional Mobility Authority (CRRMA) was tasked with constructing the system, as well as overseeing the remanufacturing of six of the City's available streetcars. These cars are the same Presidents' Conference Committee (PCC) streetcars that had operated in the area until 1974.

In 2010, TxDOT sponsored an El Paso Rail Transit Study in conjunction with the City of El Paso. The purpose of the study was to provide an engineering feasibility analysis for up to four possible routes and order-of-magnitude costs, as well as a market, benefit, and constraint analysis for a rail transit system in downtown El Paso. Four cars were determined to be needed to provide 10- to 15-minute headway plus two spare vehicles. In May 2012, the City of El Paso authorized $1.3 million for preliminary engineering and an environmental assessment. On June 26, 2014, the Texas Transportation Commission announced that the City of El Paso would receive $97 million to fund the construction phase of the El Paso Streetcar Project. Work began on the streetcar project in late 2015, including restoration of six PCC streetcars by Brookville Equipment Corporation. Each car was painted in one of the three historic color schemes worn by city streetcars in the 1950s, 1960s, and 1970s. Pre-revenue service commenced on October 9, 2018, and the streetcar opened for service on November 9, 2018. The City's Mass Transit Department, Sun Metro, operates and maintains the streetcars and associated facilities. The streetcars operate daily, following two different loops through El Paso's uptown and downtown areas. Travelers can ride the streetcars for free.

Figure 2-30: El Paso Streetcar Route Map

Source: CRRMA

Galveston Island Trolley

The Galveston Island Trolley is a heritage streetcar owned by the City of Galveston. The modern vehicles look like vintage electric trolleys (see Figure 2-31), but the four rail cars are modern, built in the 1980s, diesel-electric powered. Therefore, there are no overhead wires in Galveston. Without overhead catenary, there is technically no trolley wheel to make the connection for electricity, but the transit service retains its vintage designation anyway.

The first urban rail public transit system in Galveston began operation in 1867. Mules pulled the original vehicles until electric trolleys were introduced in 1891. The trolleys remained in service until May 1938. The new era Galveston Island Trolley opened in 1988. The rail line was originally 4.8 miles long and operated in a loop connecting downtown Galveston to the Seawall. The City expanded the downtown loop in 1995 and extended the rail line from

downtown to the University of Texas Medical Branch (UTMB) in 2005, creating a total trolley network length of 6.7 miles. The municipal transit system, Island Transit, operated the trolley; however, the City suspended trolley operation in September 2008 owing to heavy damage to the track bed and rail cars from Hurricane Ike. The FTA and Federal Emergency Management Agency (FEMA) agreed to provide financial support to assist in restoring the tracks and trolley service.[52] In January 2017, a contract was approved to restore three of the trolleys at a cost of $3.8 million.

Once repairs were made and the equipment was restored, Island Transit resumed trolley service in Galveston in October 2021, Today, the trolleys travel on the 4.8-mile Downtown Loop between the historic Strand District in downtown Galveston and Seawall Boulevard, making eight stops (see Figure 2-32). When one trolley is in operation, service is provided hourly. When two streetcars are operating, service is provided every 30 minutes, The fare is $1. A transfer to the Seawall Loop trolley bus is available at 21st Street and Seawall Boulevard.

Figure 2-31: Galveston Island Trolley Vehicle

Source: Jon Bell, July 2002

52 Section 5309 New Starts Funding (2008).

Figure 2-32: Galveston Island Rail Trolley Route Map

Source: Island Transit

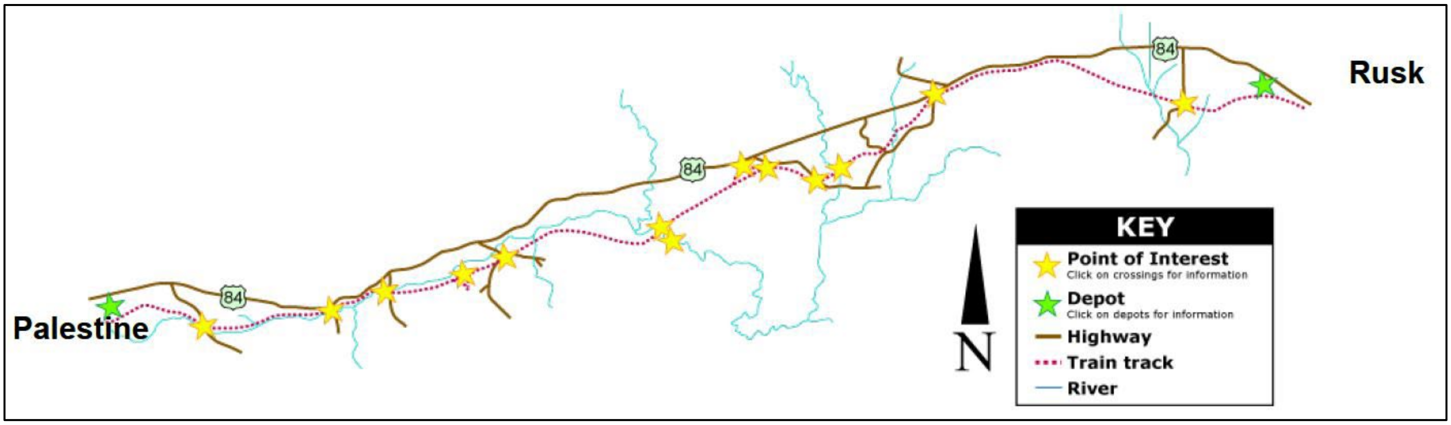
Tourist Trains

Texas State Railroad

The Texas State Railroad has been in operation as a steam powered locomotive hauled tourist passenger train since 1976. Known as "the Official State Railroad of Texas," the railroad consists of 25 miles of historic, dedicated track parallel to Highway 84. The line runs through the Piney Woods between the two East Texas towns of Palestine and Rusk (see Figure 2-33). Construction and ownership of the rail line was authorized by the Texas state government and began in 1881, initially to haul iron ore to a state penitentiary at Rusk, with a connection to the national rail network at Palestine established in 1909. Today, the railroad provides round-trip passenger excursions from Palestine to Rusk and return, on trains powered either by diesel or steam locomotives (currently the only standard-gauge steam locomotives operating in Texas). A one-way trip lasts about 80 minutes, after which passengers have the opportunity to disembark at Rusk and explore for approximately 75 minutes before reboarding for the return

trip. Additional passenger service is operated for special events throughout the year, including a Polar Express train.[53]

Figure 2-33: Map of Texas State Railroad Route



Source: Texas State Railroad

Although the State of Texas still owns the rail line, management of the Texas State Railroad has changed from the Texas Parks and Wildlife Department (in 1972) to the Texas State Railroad Authority Board in 2007, which then contracted with private companies for day-to-day operations and management. The current operator, the Western Group, has held the contract since 2017.[54] Ridership on the line has been increasing from 60,294 in calendar year 2011, to 81,000 patrons in 2016.[55] The railroad's roster of equipment includes two in-service Baldwin steam locomotives built in 1917 and vintage diesel locomotives built in the 1950s. For more information, visit www.texasstaterailroad.net.

Austin Stream Train Association

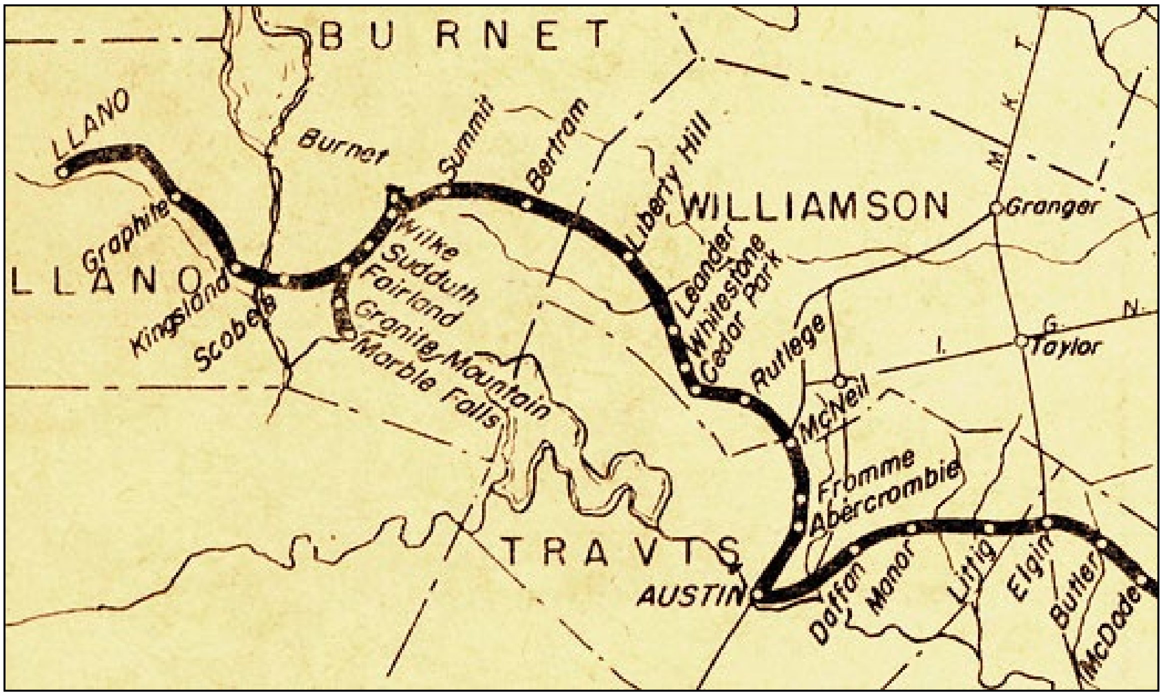
The Austin Steam Train Association (ASTA) operates tourist trains called the Hill Country Flyer and the Bertram Flyer over a historically significant rail line, portions of which are also used for freight operation by the Austin Western Railroad as well as commuter rail operations by Capital Metro's Rail Red Line. All three operators use a rail line between Austin and Giddings, originally built in 1871, which were the first railroad tracks into Austin. The tracks were extended west to Burnet in 1882, to Granite Mountain in 1885 (where the pink granite from the area was shipped to Austin via railroad to build the Texas Capitol building), and then finally to Llano in 1892. A historic map of the line is shown in Figure 2-34. The City of Austin purchased the 163-mile Giddings-to-Llano line in 1986. It is now owned by Capital Metropolitan Transportation Authority. Austin Western Railroad provides freight rail service on the Giddings-Llano segment of the line. Since the beginning of Capital Metro's commuter rail operations between Austin and Leander, freight service operates at night.

53 https://texasstaterailroad.net/train-schedule/.

54 Trains Magazine: http://trn.trains.com/news/news-wire/2017/03/31-texas-state.

55 HeritageRail Alliance: https://www.atrrm.org/2018/03/heritage-rail-ridership-attendance/.

Figure 2-34: Portion of 1956 Timetable Map of Giddings-Llano



Source: Austin Steam Train Association

Passenger rail excursions are currently provided by diesel locomotives (either a General Motors-built GP40-3 locomotive or an Alco-built RSD-15) while the association's steam locomotive (a 2-8-2 built by Alco for Southern Pacific in 1916) undergoes a long-term restoration. Two regularly scheduled excursion trips are provided from the association's base of operations in Cedar Park: the Hill Country Flyer to Burnet (a 66-mile round trip) and the Bertram Flyer to Bertram (a 44-mile round trip). The ASTA operates on weekends only, year-round. The association also operates special event trains, including a murder mystery train. For more information, visit www.austinsteamtrain.org.

Galveston Railroad Museum

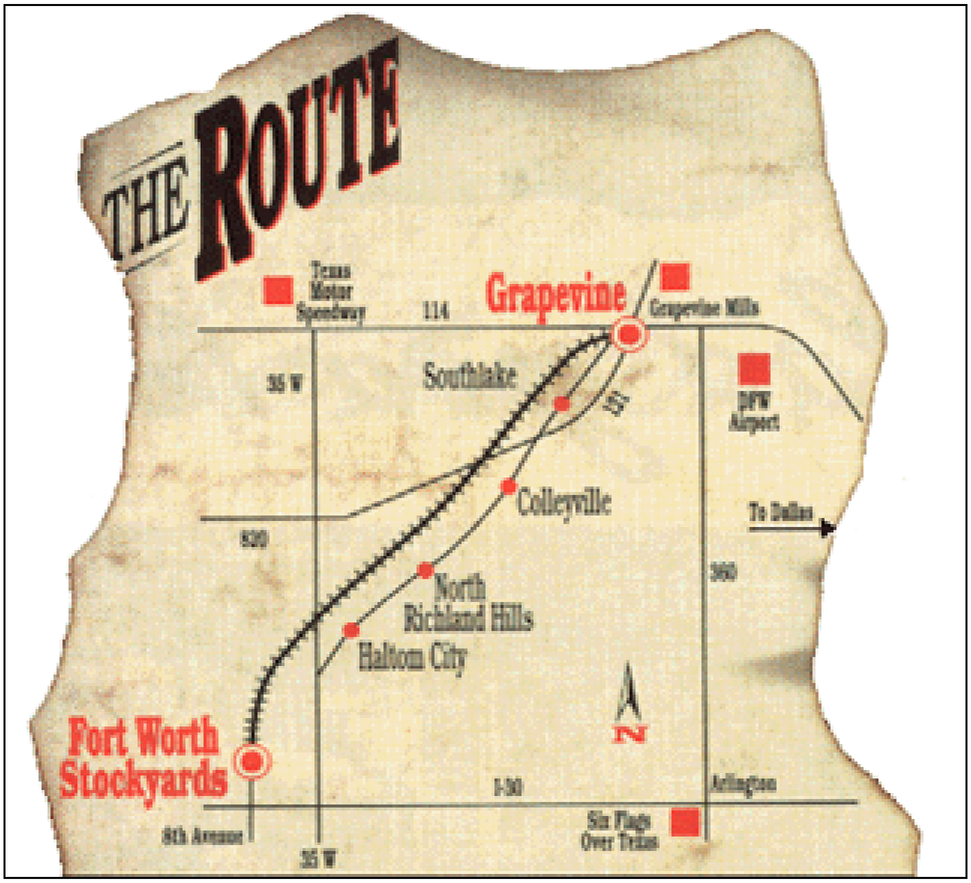
Among the Galveston Railroad Museum's attractions is the Harborside Express, which provides diesel-powered weekend caboose rides on 1 mile of museum track. The Harborside Express Caboose Rides typically run late spring through the summer, most weekends, weather permitting. The museum also operates a Polar Express special event train. For more information, visit www.galvestonrrmuseum.com.

Grapevine Vintage Railroad

The Grapevine Vintage Railroad provides tourist rides between Grapevine, Texas and the Fort Worth Stockyards on a 21-mile stretch of tracks formerly owned by St. Louis Southwestern Railway, also known as the "Cotton Belt" (see Figure 2-35). The Fort Worth & Western Railroad company (FWWR) started the tourist rail service in 1996 as the Tarantula Train. The City of Grapevine subsequently took over the service and rebranded it using the current name

in December 2000. The train operates on track shared with freight trains and is owned by DART. Ridership was 120,000 in 2016.[56]

Figure 2-35: Grapevine Vintage Railroad Route Map



Source: Grapevine Vintage Railroad

The Grapevine Vintage Railroad runs three regularly scheduled weekend excursion trains throughout the year. The Cotton Belt Route makes a 90-minute trip from the Grapevine Depot on Main Street to the historic Fort Worth Stockyards, with a return departure from Fort Worth scheduled shortly after the afternoon cattle drive. Departure is 12:50 p.m. The train arrives at the Stockyards at approximately 2:30 p.m. The return trip to Grapevine leaves at 4:45 p.m. and returns to Grapevine at approximately 7:15 p.m. The Trinity River Excursion rides in Fort Worth make a 45-minute "mini excursion" from the Stockyards following both channels of the Trinity River and passing through Trinity Park while travelers partake in an oral history of Fort Worth. It departs at approximately 3:00 p.m. and returns at approximately 3:45 p.m. The Bear Creek Short Line Excursion makes a one-hour round trip traveling west from the Grapevine Depot toward Colleyville before reversing back to town. It departs on Saturday only from the Grapevine Depot at 10:50 a.m. and returns to the Grapevine Depot at 11:50 a.m. The railroad also runs special event trains throughout the year, including holiday trains between Halloween and Christmas, and also hosts a Thomas the Tank Engine-themed annual Day Out with Thomas.

56 Heritage Rail Alliance: https://www.atrrm.org/2018/03/heritage-rail-ridership-attendance/.

Train excursions operate Saturday and Sunday from mid-February through mid-November. Trains also operate on Fridays during the summer months, and special holiday trains operate after mid-November through December. The railroad does not offer regular train service in January and February to accommodate annual maintenance. All excursions are powered by General Motors-built diesel locomotives, either a 1953 GP7 or one of two streamlined FL9 locomotives, while the railroad's 1896-built steam locomotive is overhauled.

Longhorn & Western Railroad

The Texas Transportation Museum in San Antonio offers train rides on a dedicated track built by the museum in 1991. The railroad has 3,700 total feet of track, which includes the 1,765-foot single-track main line that begins near the Longhorn Siding on the Union Pacific's mainline.[57] Trains operate on Saturday and Sunday, with additional trips on Friday during the summer. The Longhorn & Western Railroad operates on a closed track and does not share its track with freight or other passenger trains. The museum maintains and rotates excursion trips between an Alco RS-4 diesel locomotive built for the U.S. Army in 1954 and a GE 45-ton diesel locomotive built for the U.S. Air Force in 1941. The museum also operates a Baldwin 0-4-0 steam locomotive built in 1925 on special live steam days. Trains depart at 10:30 a.m., 12:30 p.m., and 2:30 p.m. on both Saturday and Sunday each week. For more information, visit www.txtransportationmuseum.org.

Railroad Abandonments and Railbanked Lines

This section summarizes a general background of rail line abandonments in Texas and the identification of actual rail service discontinuances and abandonments in the state over the last decade. Railroad abandonment occurs when a rail line is no longer used for rail service. Abandonment and discontinuance of common carrier rail service on a given rail line is allowed by federal law. A railroad may abandon a rail line with the permission of the Surface Transportation Board (STB) as generally described in this section.

TxDOT is responsible for administering lease and operating agreements on state-owned facilities and operating agreements on state-supported passenger routes. TxDOT also manages state and federally funded construction project contracts on both state- and private-owned rail facilities such as the South Orient Rail Line (SORR). The Agency also participates in the STB abandonment process when required, and monitors potential rail line abandonments and coordinates the state's involvement in and response to abandonment filings.

The following events had a profound and lasting effect on the Texas railroad network, and launched an extended period of railroad consolidation, divesture, and abandonment in Texas, starting in the 1960s:

- The merger of the Texas & Pacific Railway (T&P) into the Missouri Pacific Railway (MP) in 1976.
- The Staggers Act (1980) was passed allowing for the deregulation of the rail industry, which sped up consolidation, divesture, and abandonments of railroads across the U.S. and Texas.
- The merger of the St. Louis-San Francisco Railway Company (Frisco) into the Burlington Northern Railroad in 1980.
- In 1980, the bankruptcy and retrenchment of the Chicago, Rock Island, and Pacific Railroad (CRI&P) from Texas entirely.

57 Texas Transportation Museum: https://txtransportationmuseum.org/collection-the-railroad.php.

- Union Pacific Corporation acquired the Missouri Pacific Railroad in 1982, and the operations of the Missouri Pacific and the Union Pacific Railroad (UP) were subsequently consolidated.
- In 1988, Union Pacific Railroad (UP) merged with the Missouri-Kansas-Texas Railroad (MKT or Katy).
- In 1995, the Burlington Northern Railroad and Atchison, Topeka and Santa Fe (ATSF) merged to form the Burlington Northern and Santa Fe Railroad (today's BNSF).
- In 1996, the Union Pacific Railroad (UP) merged with Southern Pacific Railroad (SP).

Several hundred miles of railroad lines in Texas owned historically by Class I railroads were abandoned or sold or leased to regional and short line railroads between 1980 and 2010. None of the abandoned rail lines were acquired by TxDOT.

The National Trails Act allows for reserving railroad right-of-way through the interim use of the railroad corridor as a trail. Interim trail use can be utilized when it is determined that the railroad right-of-way may be needed in the future for railroad use. Public agencies may also request that the rail corridor be made available for "public use" if it has determined that the right-of-way is suitable for highway or mass transit usage, conservation, energy production or transmission, or recreation. Rail banking is a process established under federal law that allows public entities to preserve established railroad rights-of-way for future reactivation of rail service, to protect rail transportation corridors, and to provide for recreational uses such as hiking and bicycling. Many abandoned or rail banked lines have been repurposed for interim recreational trail use in Texas. Principal rail trails in Texas will be identified later in this section.

Rail Abandonments and Discontinuances Since 2007

49 U.S.C. §10903 governs the filing and procedure for common carrier application to abandon or discontinue rail operations over any part of its railroad lines as detailed in 49 CFR Part 1152. Abandonment or discontinuation requires a STB finding "that the present or future public convenience and necessity require or permit the abandonment or discontinuance." 49 CFR 1152.50 provides for exemption from the requirements for abandonment and discontinuance when the STB has found approval is unnecessary to carry out rail transportation policy of 49 U.S.C. § 10101, and the actions are of limited scope not requiring shippers be protected from abuse of market power.[58]

The principal requirements for an exempted abandonment is that the railroad certify that no local traffic has moved over the line for 2 years, that any overhead traffic can be routed over other lines, and that no formal complaint is filed by a rail service user. Table 2-15 identifies Texas railroad discontinuances and abandonments approved by the STB since March 2018.

58 The Surface Transportation Board assumed responsibility for abandonments from the Interstate Commerce Commission in 1995. Dockets dated 1996 or later are available at http://stb.gov.

Table 2-15: Discontinuances/Abandonments in Texas Since 2018

Open/ Closed	Railroad	Line Segment & Application Counties	Miles in Texas	Date of Final Decision or Action	Initial Effective Date	Acquired for Rail Use	Acquired for Rail Banking/ Trails Use	Comments
Closed	UP	Seabrook Industrial Lead (MP 6.9 to MP 7.8); Harris County	0.9	03-29-2018	04-27-2018		No	AB-33-332X
Closed	UP	Mart Line (MP 173.2 to 173.7)	0.50	05-07-2018	05-09-2018	No	No	AB-33-334-X
Closed	UP	Steel Industrial Lead (MP 2.4 to MP 4.63); Harris and Chambers County	2.23	08-07-2019	07-08-2019	No	No	AB-33-339X
Closed	Alcoa Energy Services, Inc.	Marjorie, TX (MP 0.0 to MP 6.0); Milam County	6.0	03-06-2020	04-08-2020	No	No	AB-1291-0-x
Closed	UP	Houston Navigation Lead (MP 0.98 to MP 1.31 and MP 1.71 to MP 2.62; Harris County	1.24	09-10-2020	10-10-2020	No	No	AB-33-343X
Closed	TC	MP 0.0 to MP 6.277; Bell County	6.277	12-28-2020	01-27-2021	No	Yes	AB-13-02X
Closed	CTXR	MP 0.0 to MP 67.50; McCulloch, San Saba, Mills, and Lampasas Counties	67.50	04-26-2022	05-27-2022	No	No	AB-1272-0-X

Source: U.S. Surface Transportation Board Office of Environmental Analysis, Abandoned and Railbanked Rail Lines GIS Web Application

Railbanked Lines and Interim Trail Use

Recognizing that abandoned rail lines are typically lost for future transportation uses, rail right-of-way has been proactively railbanked in Texas. When a line is railbanked, the purchaser must maintain ownership of the corridor for future rail use. Some of these segments may potentially hold strategic value as future transportation corridors in the state. TxDOT reviews all potential rail abandonments in the state for suitability as recreational corridors under the Federal Rails to Trails legislation, though TxDOT does not always have a way to intercede.

Over 23,000 miles of open rails-to-trails corridors exist nationwide, with approximately 301 miles in Texas.[59] Several abandoned rail line segments have been converted to rail trails for interim recreational use in the state since the

59 https://www.railstotrails.org/our-work/united-states/texas/#state.

1980s. The state has more than 200 multi-use rail trails of varying lengths; some of the principal rail trails in Texas include the following facilities:[60]

- Northeast Texas Trail (102 miles; asphalt and concrete surfaces).
- Caprock Canyons State Park Trailway (64.2 miles; ballast surface).
- Fort Worth Branch – Trinity River Trails (47.9 miles; asphalt, concrete, and gravel surfaces).
- DeKalb Trace (27.9 miles; gravel surface).
- Lake Mineral Wells State Trailway (20 miles; asphalt and crushed stone surfaces).
- Cotton Belt Trail (19.8 miles; concrete trail).
- A-Train Rail Trail (19 miles; concrete trail).
- Leon Creek Greenway (18 miles; asphalt and concrete surfaces).
- Wichita River and Holliday Creek Trails (14.9 miles; concrete surface).
- Red Line Parkway Trail (10 miles; asphalt, concrete, and gravel surfaces).

Strategic Rail Corridor Network Facilities

The Strategic Rail Corridor Network (STRACNET) is a program under the U.S. Department of Defense's Railroad and Highways for National Defense program and is designated to ensure the nation's rail and highway infrastructure can support defense emergencies. STRACNET consists of 41,300 miles of rail lines that are important for national defense and provide service to 141 defense installations.[61,62] The program works to integrate defense rail needs into civil sector planning affecting the nation's railroad system. Below are military installations and other locations within Texas requiring rail service with the corresponding railheads or city location:

- Fort Bliss - El Paso, Texas
- Fort Cavazos - Killeen, Texas
- Port of Beaumont - Beaumont, Texas
- Port of Corpus Christi - Corpus Christi, Texas
- Port of Port Arthur - Port Arthur, Texas
- Red River Army Depot - Texarkana, Texas

As a practical matter for rail network planning, location of a STRACNET rail line requires that rail lines maintain clearances of at least 16 feet 11 inches (16'-11") vertically and 12 feet (12'-0") horizontally. High-level platforms in passenger stations are the only type of new construction that is likely to interfere with the U.S. Department of Defense profile, since STRACNET width requirements exceed the width of most passenger coaches, raised passenger station platforms on STRACNET rail lines must be constructed in such a way that they do not interfere with STRACNET lines. Wide-load trains must be able to route around obstructions (such as on another track), raised station platforms must be constructed so that the edges can be flipped up in case of national emergency, or trains

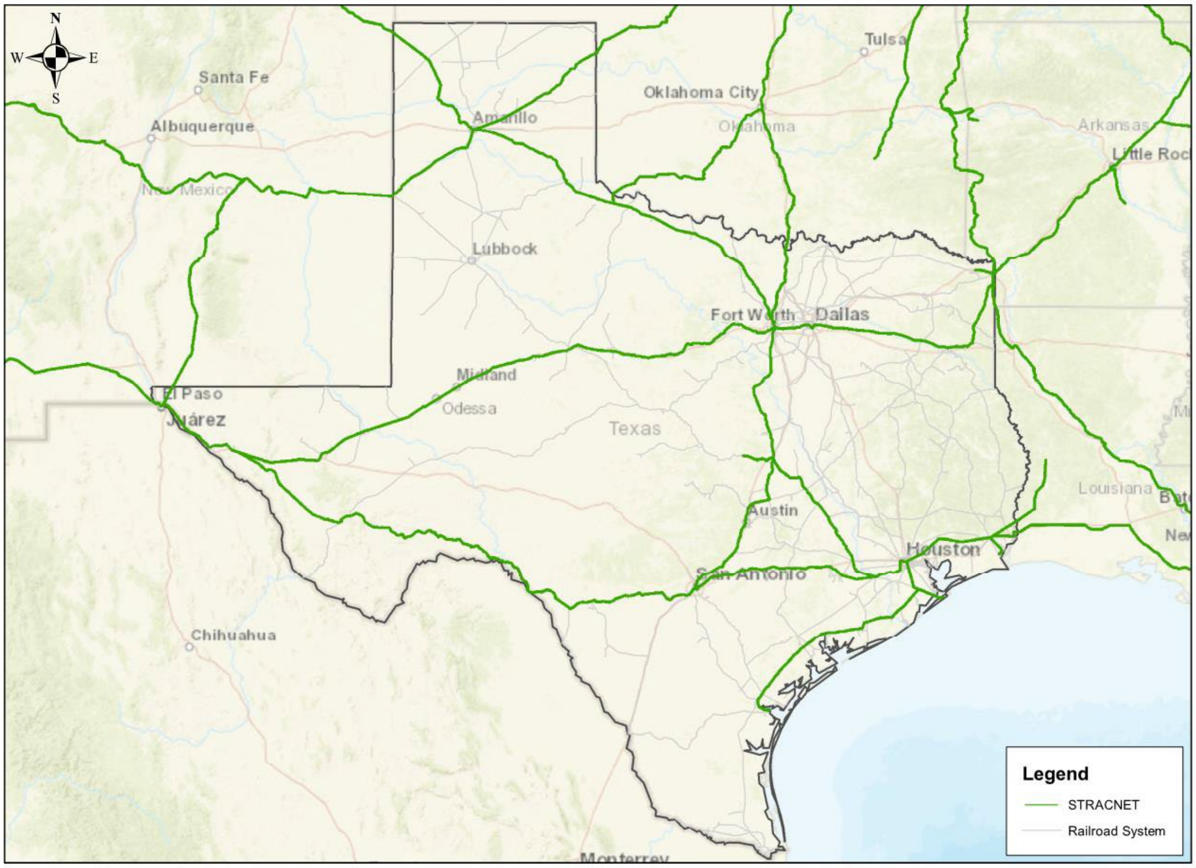
60 https://www.traillink.com/trailsearch/?state=tx.

61 U.S. Army, Railroads for National Defense, https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/Pages/RailroadsNationalDefense.aspx.

62 U.S. Army, Strategic Rail Corridor Network (STRACNET) and Defense Connector Lines, https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/RND%20Publications/STRACNET%202023.pdf.

should be able to shift away from station platforms (such as through gauntlet tracks).[63] Figure 2-36 shows STRACNET lines in Texas. A more detailed map of STRACNET Lines in Texas is found in Appendix B.

Figure 2-36: STRACNET Lines in Texas



Source: Federal Railroad Administration and Google Earth

Major Freight and Passenger Terminals

Freight Rail Yards and Facilities

Freight railroads in Texas have multiple facilities to support railroad operations and maintenance and interface with freight shippers and receives within the state. Major freight rail yards, terminals, and facilities in Texas are identified and described in Appendix A. The following types of freight rail facilities exist in Texas:

- Classification yards
- Intermodal terminals
- Transload facilities
- Freight car repair facilities
- Locomotive repair and servicing facilities

63 U.S. Army, Strategic Rail Corridor Network (STRACNET) and Defense Connector Lines, https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/RND%20Publications/STRACNET%202023.pdf.

- Border crossings

Border Crossings

Texas is home to five of the eight U.S. rail border crossings with Mexico, located in Brownsville (West Rail), Laredo (Texas Mexican Railway International Bridge), Eagle Pass (Camino Real International Bridge), El Paso (Bridge of the Americas, which is two separate structures), and Presidio (Presidio-Ojinaga International Bridge).

Passenger Rail Terminals and Stations

In addition to serving as gateways to the trains, rail stations, are also gateways to and from the cities served by these trains. Rail stations are a focus for activity and foster economic development, commercial endeavors, tourism, cultural activities, civic pride and historic preservation in their cities.

Major Terminals

Major terminals where connections between passenger and commuter rail services can be made include:

- **Fort Worth**: Fort Worth Central Station serves both Amtrak's Heartland Flyer and Texas Eagle, as well as Trinity Railway Express commuter trains to Dallas and TEXRail commuter trains to DFW Airport.
- **Dallas**: Eddie Bernice Johnson Union Station serves Amtrak's Texas Eagle, as well as Trinity Railway Express commuter trains to Fort Worth and DART light rail Red Line and Blue Line trains. A connection to the Dallas Streetcar is also available one block from the station.

Stations

Texas has 19 Amtrak stations, 10 exclusively serving the *Texas Eagle*, 2 exclusively serving the *Sunset Limited*, and 1 exclusively serving the *Heartland Flyer*. In addition to these exclusive service routes, 5 other stations serve both the *Sunset Limited* and the *Texas Eagle*, while Fort Worth Central Station serves both the *Heartland Flyer* and the *Texas Eagle*.

With two daily trains and connections between the *Heartland Flyer* and *Texas Eagle*, Fort Worth Central Station serves the greatest number of riders (more than 100,000 Amtrak passengers per year), followed by San Antonio (more than 50,000 Amtrak passengers per year). In FY 2023, nearly 389,000 riders boarded or disembarked from Amtrak trains in Texas, a 27% increase from the previous fiscal year, and a ridership volume higher than the pre-COVID years of FY 2018 and FY 2019.

Eight of the stations, Austin, Dallas, El Paso, Fort Worth, Houston, Longview, San Antonio, and Temple, are full-service stations with ticket agents and checked baggage service. The station at Marshall is staffed but does not offer checked baggage. The other ten stations are unstaffed. Unstaffed stations are facilities with platforms and structures (generally former stations) with enclosed waiting rooms. There are no station employees, although the facilities may be hosted by part-time or volunteer caretakers that open and close station structures at train time and offer limited assistance to passengers. No ticketing facilities are available, and passengers generally purchase their transportation through Amtrak's on-line booking system and print their boarding passes at home.

The platforms, waiting rooms and facilities (restrooms, etc.) of 11 of Texas' stations, Alpine, Austin, Cleburne, Dallas, El Paso, Fort Worth, Gainesville, Houston, Marshall, McGregor, and San Antonio are fully wheelchair

accessible. Two of the remaining stations are partially accessible, meaning that while platforms are accessible there are some facilities/pathways that preclude the station from being considered fully accessible—usable by the disabled without any kind of assistance. Sanderson has no facilities other than a platform with a wheelchair lift and disabled passengers will most likely need assistance to board or disembark there. Longview and Mineola have restrooms but they cannot be accessed by wheelchair bound passengers. All other stations with restrooms are accessible. All of the stations that offer parking have spaces set aside as accessible parking. Several stations have vending machines for the convenience of passengers.

Intercity Stations and Intercity/Commuter Rail Union Stations

Amtrak does not own any passenger rail stations in Texas; stations are usually owned by the cities or by the freight rail operator. Some stations are used by more than one route, such as the *Heartland Flyer* and the *Texas Eagle* use of the Fort Worth station, and in some cases such as Fort Worth Central Station, the facility is shared with local commuter services as well.

Table 2-16 in the following section lists all the stations used by Amtrak, their ownership, services, and whether the station is an intermodal terminal. The total number of available short-term and long-term parking spaces available at each station listed by Amtrak is also provided. The number does not include private parking facilities near each station unless otherwise noted. A summary of Amtrak stations follows.

Alpine, Texas (ALP) | *Texas Eagle* and *Sunset Limited* Routes

The station serving Alpine, "Gateway to Big Bend National Park," was constructed in 1946. It has a waiting area, a train platform, and a limited amount of parking located on-site. The station is unstaffed and is served by 6 trains per week (3 each direction).

Figure 2-37: Alpine, Texas Station

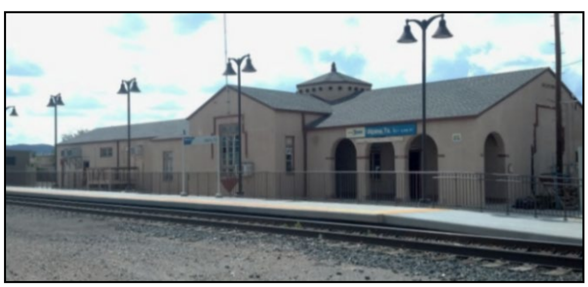


Photo Credit: TxDOT

Austin, Texas (AUS) | *Texas Eagle* Route

Austin is served by a brick station building built in 1947 for the Missouri Pacific Railroad with a waiting area, train platform, checked baggage, bag storage, ticket office, and a limited amount of on-site parking. It is served by 2 trains daily (1 each direction). The station is located within close proximity (1 mile) to the Capital Metro's Red Line commuter rail line.

Figure 2-38: Austin, Texas Station

Photo Credit: TxDOT

Beaumont, Texas (BMT) | *Sunset Limited* Route

Beaumont is served by a new station building completed in 2012 with covered benches adjacent to the train platform. The access road, sidewalks and parking area were also replaced. The City of Beaumont acquired connecting property for a police substation that includes public restrooms for Amtrak passengers. Beaumont is unstaffed and is served by 6 trains per week (3 each direction).

Figure 2-39: Beaumont, Texas Station

Photo Credit: TxDOT

Cleburne, Texas (CBR) | *Texas Eagle* Route

The Cleburne Intermodal Transportation Depot was completed in 1999 and serves as a local bus station as well as an Amtrak station. A waiting area, restrooms, and limited parking facilities are available on-site. Additionally, it serves as a dispatching station for Cletran (Cleburne’s local transit system). Cleburne is unstaffed and is served by 2 trains daily (1 each direction).

Figure 2-40: Cleburne, Texas Station

Photo Credit: TxDOT

Dallas, Texas (DAL) | *Texas Eagle* Route

The Beaux-Arts Eddie Bernice Johnson Union Station in Dallas was built in 1916 and serves as a station for Trinity Railway Express (TRE) commuter trains, Dallas Area Rapid Transit light rail, and local bus service in addition to Amtrak service. The waiting area features public restrooms, bag storage, and a ticket counter. Limited short-term parking and ample hourly and contract parking are also located on site. It is served by 2 Amtrak trains daily (1 each direction) and 60 TRE commuter trains (30 in each direction) on weekdays and 38 commuter trains (19 in each direction) on Saturday. TRE does not operate on Sunday.

Figure 2-41 Dallas, Texas

Photo Credit: Ron Reiring

Del Rio, Texas (DRT) | *Texas Eagle* and *Sunset Limited* Routes

Del Rio is served by an intermodal station that offers local bus service in addition to Amtrak service. The waiting area is equipped with public restrooms during station hours; however, station hours do not coincide with early morning train arrivals and departures, and limited short-term parking is available on-site, with long-term street parking available off-site. Del Rio is unstaffed and is served by 6 trains per week (3 each direction).

Figure 2-42: Del Rio, Texas Station

Photo Credit: TxDOT

El Paso, Texas (ELP) | *Texas Eagle* and *Sunset Limited* Routes

The neoclassical El Paso Union Depot, designed by famed architect and city planner Daniel Burnham was completed in 1906. A waiting area is located inside with public restrooms, checked baggage, bag storage, a ticket counter, and a second floor gallery. Limited street parking is located off-site, and no parking is available on-site. Future plans call for transitioning the station into an intermodal terminal. The depot is served by 6 trains per week (3 each direction).

Figure 2-43: El Paso, Texas Station

Photo Credit: TxDOT

Fort Worth, Texas (FTW) | *Texas Eagle* and *Heartland Flyer* Routes

The Fort Worth Central Station, built in 2002 as the Fort Worth Intermodal Transportation Center and renamed in 2019, serves as a local transportation hub for Amtrak, Trinity Railway Express, TEXRail, intercity motor coach service, local transit bus service (The T), and the free rubber-tired "Molly the Trolley" ride to downtown Fort Worth

(Sundance Square), the Fort Worth Convention Center, and the Fort Worth Water Gardens. Rental car and taxi services, as well as bike share are also available. The station waiting area is equipped with public restrooms during station hours, checked baggage, bag storage, and a ticket counter. Paid parking is available adjacent to the station complex off-site. Fort Worth Central Station is served by 4 Amtrak trains daily (1 frequency each direction on two routes, the *Heartland Flyer* and *Texas Eagle*), as well as 67 daily TEXRail commuter trains, 58 TRE commuter trains on weekdays, and 40 TRE trains on Saturday.

Figure 2-44: Fort Worth, Texas Station

Photo Credit: TxDOT

Gainesville, Texas (GNS) | *Heartland Flyer* Route

The Gainesville depot was completed in 1902 for the Gulf Coast & Santa Fe Railroad. Restored in 2001, it contains a waiting room restrooms, a limited amount of parking on-site, as well as a museum in an area separate from the Amtrak facilities and office space upstairs. Gainesville is unstaffed and served by 2 trains daily (1 each direction).

Figure 2-45: Gainesville, Texas Station

Photo Credit: TxDOT

Houston, Texas (HOU) | *Sunset Limited* Route

The current Amtrak station is the fourth Houston passenger depot, constructed by the Southern Pacific Railroad (SP) (a predecessor of today's UP) in 1960. The station provides a ticket office, waiting area, restrooms, checked baggage, bag storage, and a limited amount of parking located on-site. Plans to move the Amtrak station to the

proposed Burnett Plaza intermodal facility were not implemented for financial reasons. The station is served by 6 trains weekly (1 each direction 3 times per week). The Amtrak station is located within close proximity (less than 1 mile) to Houston METRO's light rail system, specifically both the Green Line and Purple Line, which terminate closest to the Amtrak station at the downtown Theater District station.

Figure 2-46: Houston, Texas Station

Photo Credit: TxDOT

Longview, Texas (LVW) | *Texas Eagle* Route

The original Longview depot was completed in 1940 and provides a ticket office, waiting area, restrooms, checked baggage, bag storage, and a limited amount of parking located on-site. The depot underwent a $2.8 million major renovation of the main building and re-opened in May 2014. Amtrak services were moved back into the original waiting space and ticket office, sharing the facility with Longview Transit and Greyhound. The rest of the building is used for city offices and meeting space. It is served by 2 trains daily (1 each direction).

Figure 2-47: Longview, Texas Station

Photo Credit: TxDOT

Marshall, Texas (MHL) | *Texas Eagle* Route

The Marshall Station was built in 1912 by the Texas & Pacific Railway (T&P) and provides a ticket office, a waiting area, restrooms and a limited amount of parking located on-site. In addition, the building houses the Texas & Pacific Railway Museum on its second and third floors that includes an upper-level balcony. Visitors can also climb into the cab of a T&P 2-8-2 steam locomotive and see a restored caboose on the museum grounds. The station was restored in 1999. It is served by 2 trains daily (1 each direction).

Figure 2-48: Marshall, Texas Station

Photo Credit: TxDOT

McGregor, Texas (MCG) | *Texas Eagle* Route

The McGregor depot, built in 1904, includes a waiting area, restrooms, and a limited amount of parking located on-site. McGregor is served by 2 trains daily (1 each direction).

Figure 2-49: McGregor, Texas

Photo Credit: TxDOT

Mineola, Texas (MHL) | *Texas Eagle* Route

The Mineola station was modernized in 1951 and underwent a thorough renovation that was completed in 2006, restoring its original appearance from 1906 when it was built. The station has a waiting area, restrooms, a limited amount of parking located on-site, as well as a railroad museum that shares the facility's space. The Iron Hose Square railroad park next to the station offers miniature train rides on the 2nd and 4th Saturday, April through October, and during holidays and special events. Mineola is unstaffed and is served by 2 trains daily (1 each direction).

Figure 2-50: Mineola, Texas Station

Photo Credit: TxDOT

San Antonio, Texas (SAS) | *Sunset Limited* and *Texas Eagle* Routes

Amtrak has been operating in its current facility in San Antonio since 1998. The facility provides a ticket office, waiting area, restrooms, checked baggage, bag storage, and a bike share station adjacent to the building. No parking is available at this location. The facility is served by 2 trains daily (1 each direction for the *Texas Eagle* route) as well as 6 additional trains per week (1 each direction, 3 times per week for the *Sunset Limited* route).

Figure 2-51: San Antonio, Texas Station

Photo Credit: TxDOT

San Marcos, Texas (SMC) | *Texas Eagle* Route

The San Marcos Intermodal Station, in operation since 2001, serves Amtrak, Greyhound, taxi, and local interurban coach passengers. It provides a waiting area, restrooms, and a limited amount of parking on-site. San Marcos is unstaffed and is served by 2 trains daily (1 each direction).

Figure 2-52: San Marcos, Texas Station

Photo Credit: TxDOT

Sanderson, Texas (SND) | *Sunset Limited* and *Texas Eagle* Routes

Sanderson was a flag stop until 2016 when Amtrak changed its designation. In 2021, the Sanderson station received a $3 million upgrade. The station now provides an accessible open-air shelter, concrete platform, walkways, and a limited amount of parking on-site. A built-In bench provides seating in the shade. The station is unstaffed and is served by 6 trains per week (3 each direction).

Figure 2-53: Sanderson, Texas Station

Photo Credit: TxDOT

Taylor, Texas (TAY) | *Texas Eagle* Route

Only a platform exists at Taylor for Amtrak service, which shares a site with a Union Pacific office building. A small shelter with picnic tables is adjacent to the building and train platform. Taylor is unstaffed and is served by 2 trains daily (1 each direction).

Figure 2-54: Taylor, Texas Station

Photo Credit: TxDOT

Temple, Texas (DRT) | *Texas Eagle* Route

Amtrak service in Temple is located in the former Atchison, Topeka, and Santa Fe station, built in 1911. The waiting area is equipped with public restrooms during station hours, a ticket office, a checked baggage office with bag storage available, and ample parking available on-site. The station was restored in 1999, and also contains a museum with a display of railroad equipment. It is served by 2 trains daily (1 each direction).

Figure 2-55: Temple Station

Photo Credit: TxDOT

ADA Compliance

Amtrak's *A Report on Accessibility and Compliance with the Americans with Disabilities Act of 1990*, produced in 2009, noted that 18 in-service Texas stations were required to be ADA (Americans for Disability Act) compliant. The only exception was Sanderson, a low volume station that at the time was designated as a flag stop, which exempted it from the ADA requirements. Among the 18 stations, Amtrak had full or partial ADA compliance responsibility at 13 of them (the exceptions being Dallas, El Paso, Fort Worth, San Antonio, and San Marcos). In 2016, Amtrak changed the designation at the Sanderson station from a flag stop to a permanent stop on the *Sunset Limited* route, thus making the station subject to ADA requirements.

Under ADA legislation, Amtrak was required to complete accessibility improvements by 2015 at all stations for which it has legal ADA responsibility. That work is still ongoing. Since 2009, Amtrak and its host freight railroads have been working to develop strategies and plans to meet FRA's requirements to accommodate passengers with disabilities, while simultaneously also improving opportunities to establish level boarding by raising platform surfaces to heights at or closer to the height of the train car floor. This is a complex task, integrating railroad clearance requirements, freight traffic volumes, and the mix of passenger cars with different floor heights (Superliner, single-level, and commuter) that may operate on the same line. Since freight train operations on shared track cannot be impacted, many platforms at stations in Texas cannot be raised to the full height of the train car floor. Instead, Amtrak may place portable wheelchair lifts to provide entry to the train for disabled passengers. Given the engineering and funding needed to address the level boarding issue, Amtrak and the FRA are making improvements using the following priorities:

- Platform state-of-good repair needs;
- Stations with known train access deficiencies, where wheeled mobility passengers cannot buy a ticket or access a train;
- Stations with known deficiencies in information display systems; and
- Stations where entrances and exits or amenities like restrooms are currently not accessible.

As of 2018, all of the passenger rail stations in Texas with waiting areas have been made accessible. (Beaumont, Del Rio, San Marcos, Sanderson, and Taylor do not have enclosed waiting areas.) Fifteen stations have wheelchair lifts available, according to Amtrak's website, and nine stations provide wheelchairs for passengers using the station. For the 385 passenger rail stations (out of 515) across the United States where Amtrak has sole or shared ADA responsibility, Amtrak is taking steps to complete the required accessibility improvements. At facilities for which Amtrak is not responsible, it has or will notify the responsible parties (in many cases, it is a municipality) of compliance requirements. In the past five years, Amtrak has completed accessibility improvements at Del Rio, Longview, McGregor, and Sanderson. Under Amtrak's FY 2024-2029 Five Year Plan, the railroad will complete accessibility improvements at Austin, Cleburne, El Paso, Gainesville, Houston, Marshall, Mineola, Taylor, and Temple. Amtrak's plan also includes updating the Passenger Information Display Systems (PIDS) at the Fort Worth station in FY 2023-2024 to establish an integrated audio-visual messaging system to broadcast train service and general announcements.

Texas Passenger Rail Station Characteristics

The matrix in Table 2-16 summarizes the existing intercity stations and intercity/commuter rail union stations in Texas and specific information about each of the stations.

Table 2-16: Detailed Amtrak Station Information

	Alpine	Austin	Beaumont	Cleburne	Dallas
Owner	UP	UP	City of Beaumont/UP	City of Cleburne/ BNSF Railway	City of Dallas/UP
Address	102 West Holland Avenue, Alpine, TX 79830	250 North Lamar Boulevard, Austin, TX 78703	2555 West Cedar Street, Beaumont, TX 77704	206 North Border Street, Cleburne, TX 76031	400 South Houston Street, Dallas, TX 75202
Route	*Texas Eagle* and *Sunset Limited*	*Texas Eagle*	*Sunset Limited*	*Texas Eagle*	*Texas Eagle*
Platform					
Type	Single	Single	Single	Single	Triple
Length (approx)	470 feet	850 feet	600 feet	30 feet	500-900 feet
Construction	Concrete	Asphalt/Concrete	Concrete	Brick Pavers	Concrete / Brick Pavers
Shelter	None	None	Fully Covered	Covered Benches	Covered Benches
Lighting	Fully Lit	Fully Lit	Fully Lit	Unlit	Fully Lit
Amenities	Benches	None	Benches	Benches	Benches
Passenger Safety	Tactile Warning Surface Strip (with yellow safety line)	Yellow Safety Line	Tactile Warning Surface Strip (with yellow safety line)	None/chain link fence	Tactile Warning Surface Strip (with yellow safety line)
ADA	Fully Accessible	Fully Accessible	Fully Accessible	Fully Accessible	Fully Accessible
Depot					
Hours	9 a.m. – 9 p.m. (closed Wed. and Fri.)	9 a.m. – 7 p.m.	N/A	7 a.m. – 5 p.m. (Mon-Fri)	8 a.m. – 7 p.m.
Seating Capacity	18	60	25	66	114
Restrooms	Yes	Yes	Yes*	Yes	Yes
Vending	No	Yes	No	Yes	Yes
ATM	No	No	No	No	No
Ticket Counter	No	Yes	No	No	Yes
Ticket Kiosk	No	No	No	No	No
Telephones	No	No	No	No	Payphone
Shared Uses	UP Office	None	*Restrooms in Police Station	Local Bus, Cletran dispatch center	TRE Commuter Rail, DART Light Rail, Dallas Streetcar, Local Bus; Major Intermodal Center
Parking					
Short Term (ST)	25	50	10	16	20
Long Term (LT)	ST=LT	ST=LT	ST=LT	ST=LT	84 (pay lot)
ADA Facilities	2 reserved spaces	2 reserved spaces	2 reserved spaces	2 reserved spaces	4 reserved spaces

	Del Rio	El Paso	Fort Worth	Gainesville	Houston
Owner	City of Del Rio/UP	City of El Paso/UP	Fort Worth Transportation Authority	City of Gainesville/ BNSF Railway	UP
Address	100 North Main Street, Del Rio, TX 78840	700 West San Francisco Avenue, El Paso, TX 79901	1001 Jones Street, Fort Worth, TX 76102	605 East California Street, Gainesville, TX 76240	902 Washington Avenue, Houston, TX 77002
Route	*Texas Eagle* and *Sunset Limited*	*Texas Eagle* and *Sunset Limited*	*Texas Eagle* and *Heartland Flyer*	*Heartland Flyer*	*Sunset Limited*
Platform					
Type	Single	Single	Triple	Single	Double
Length (approx)	650 feet	1100 feet	700 feet	250 feet	1050 feet
Construction	Concrete	Asphalt	Concrete/Brick Pavers	Asphalt/Brick Pavers	Concrete
Shelter	None	None	Fully Covered	Partial Awning	Fully Covered
Lighting	Fully Lit	Fully Lit	Fully Lit	Fully Lit	Fully Lit
Amenities	Benches	-	Benches	Benches	-
Passenger Safety	Tactile Warning Surface Strip (with yellow safety line)	Yellow Safety Line/Chain Link Fence	Tactile Warning Surface Strip (with yellow safety line)	Yellow Safety Line	Yellow Safety Line
ADA	Fully Accessible	Fully Accessible	Fully Accessible	Fully Accessible	Fully Accessible
Depot					
Hours	N/A	Sat.-Tue. and Thu.: 11:45 a.m. – 7 p.m.; Wed. and Fri: 9:15 a.m. – 4:30 p.m.	9 a.m. – 7 p.m.	11:15 a.m. – 6:45 p.m.	10 a.m. – 8 p.m.
Seating Capacity	0	52	85	14	100
Restrooms	No	Yes	Yes	Yes	Yes
Vending	No	Yes	Yes	No	Yes
ATM	No	Yes	Yes	No	No
Ticket Counter	No	Yes	Yes	No	Yes
Ticket Kiosk	No	No	No	No	No
Telephones	No	No	Payphone	Payphone	No
Shared Uses	Intermodal Station (local bus, taxi)	None/Thruway Bus Connection	TRE and TEXRail Commuter Rail, Intercity/Local Bus	Museum and City Offices	None/Thruway Bus Connection
Parking					
Short Term (ST)	31	6	6	14	25
Long Term (LT)	ST=LT	0	None	ST=LT	ST=LT
ADA Facilities	3 reserved spaces	1 reserved space	2 reserved spaces	3 reserved spaces	2 reserved spaces

	Longview	Marshall	McGregor	Mineola	San Antonio
Owner	City of Longview/UP	UP	BNSF Railway	City of Mineola / UP	VIA Metropolitan Transit
Address	905 Pacific Avenue, Longview, TX 75602	800 North Washington Street, Marshall, TX 75670	1 Amtrak Boulevard, McGregor, TX 76657	115 East Front Street, Mineola, TX 75773	350 Hoefgen Street, San Antonio, TX 78205
Route	*Texas Eagle*	*Texas Eagle*	*Texas Eagle*	*Texas Eagle*	*Texas Eagle* and *Sunset Limited*
Platform					
Type	Single	Single	Single	Single	Single
Length (approx)	800 feet	300 feet	540 feet	260 feet	550 feet
Construction	Asphalt/Concrete	Concrete	Concrete	Concrete	Brick Pavers/Concrete
Shelter	-	-		Partial Awning	Fully Covered
Lighting	Fully Lit	Fully Lit	Fully Lit	Fully Lit	Fully Lit
Amenities	-	-	-	-	Benches
Passenger Safety	Tactile Paver	Yellow Safety Line	Tactile Warning Surface Strip (with yellow safety line)	Yellow Safety line, Tactile Paver	Yellow Safety Line
ADA	Fully Accessible	Fully Accessible	Fully Accessible	Fully Accessible	Fully Accessible
Depot					
Hours	8 a.m. – 7 p.m.	7 a.m. – 11: a.m.; 4:30 p.m. – 8:30 p.m.	10 a.m. – 6 p.m.	9 a.m. – 6 p.m.	12 a.m. – 7 a.m.; 9 p.m. – 11:59 p.m.
Seating Capacity	14	26	20	48	33
Restrooms	Yes	Yes	Yes	Yes	Yes
Vending	Yes	Yes (gift shop)	No	Yes	Yes
ATM	No	No	No	No	No
Ticket Counter	Yes	Yes	No	No	Yes
Ticket Kiosk	No	No	No	No	No
Telephones	No	No	No	Payphone	No
Shared Uses	Multimodal center: Thruway, intercity, and local buses/UP offices	Museum/Local bus	None	Museum	None (adjacent to bike share station)
Parking					
Short Term (ST)	16	42	3	25	0 (paid lot adjacent)
Long Term (LT)	Short Term Only	ST=LT	ST=LT	ST=LT	0
ADA Facilities	2 reserved spaces	2 reserved spaces	2 reserved spaces	2 reserved spaces	1 reserved space

	San Marcos	Sanderson	Taylor	Temple
Owner	Capital Area Rural Transportation System	UP	UP/Amtrak	City of Temple/BNSF
Address	338 South Guadalupe St., San Marcos, TX 78666	201 West Downie Street, Sanderson, TX 79848	118 East First Street, Taylor, TX 76574	315 West Avenue B, Temple, TX 76501
Route	*Texas Eagle*	*Texas Eagle* and *Sunset Limited*	*Texas Eagle*	*Texas Eagle*
Platform				
Type	Single	Single	Single	Single
Length (approx)	300 feet	125 feet	140 feet	830 feet
Construction	Concrete	Concrete	Asphalt	Brick Pavers
Shelter	Partially Covered	Partially Covered	None	None
Lighting	Fully Lit	Fully Lit	Fully Lit	Fully Lit
Amenities	Benches	Benches	Benches, Tables	None
Passenger Safety	Tactile Paver Strip	Tactile Warning Surface Strip (with yellow safety line)	None	Yellow Safety Line / Chain Link Fence
ADA	Fully Accessible	Fully Accessible	Fully Accessible	Fully Accessible
Depot				
Hours	7 a.m. – 8 p.m. (Mon.-Fri.)	N/A	N/A	9 a.m. – 7 p.m. (Tue.-Fri.); 9 a.m. – 5:30 p.m. (Sat.-Mon.)
Seating Capacity	41	6	N/A	37
Restrooms	Yes	No	No	Yes
Vending	Yes	No	No	Yes
ATM	No	No	No	No
Ticket Counter	No	No	No	Yes
Ticket Kiosk	No	No	No	No
Telephones	Payphone	No	Payphone	No
Shared Uses	Greyhound, CARTS interurban coach, local bus, taxi	None	UP Yard Office	Thruway Bus/Museum/Offices
Parking				
Short Term (ST)	5	10	24	30
Long Term (LT)	ST=LT	ST=LT	ST=LT	ST=LT
ADA Facilities	4 reserved spaces	2 reserved spaces	2 reserved spaces	3 reserved spaces

Passenger Rail Service Objectives

TxDOT continues to jointly fund the *Heartland Flyer*, which is one of Amtrak's state-supported intercity passenger trains, with Oklahoma. Both states provide annual contributions to fund the operation of the Fort Worth-Oklahoma City service, as required under the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) for passenger trains on routes of 750 miles or less.

All other passenger services currently operating in Texas are long-distance trains operated by Amtrak (which are funded by Congress) or commuter services operated by local transit agencies, on rail lines owned either by freight railroads or transit agencies. As such TxDOT's ability to directly impact specific passenger rail service levels, train frequencies, or train schedules is limited. Overall, however, TxDOT is committed to implementing rail-related state policies, and supports the development of modal transportation options.

Performance Review of Texas Intercity and Commuter Passenger Rail Operations

This section provides an overview of the metrics associated with intercity passenger and commuter rail operations in Texas. Where available, this section describes the ridership, operating, and financial results for these services. For Amtrak services, which are interstate in nature, data for ridership, financial performance, on-time performance, and customer satisfaction of its trains are compiled and reported on a route-level basis.

Amtrak Long Distance and Intercity Performance Evaluation

This section provides an overview of the metrics associated with Amtrak's intercity passenger rail operations in Texas.

Ridership and Utilization

Table 2-17 provides an overview of ridership for Amtrak routes serving Texas from FY 2019 through FY 2023.

Table 2-17: Amtrak Riders on Routes Serving Texas, FY 2019–2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	68,744	41,801	42,299	63,052	72,379
Texas Eagle	321,694	196,078	151,393	253,491	294,439
Sunset Limited	92,827	55,118	57,562	73,904	77,288

Source: Amtrak

All three Amtrak routes serving Texas had significant declines in ridership during the COVID-19 pandemic. As a result of the drop in travel, Amtrak reduced the frequency and capacity of trains serving Texas, in order to reduce operating losses.

In the spring of 2020, Amtrak began limiting ticket sales to 50% of the *Heartland Flyer*'s seating capacity, as a safety measure, however, *Heartland Flyer* train service continued to operate daily throughout the pandemic. In

October 2020, Amtrak reduced the frequency of the *Texas Eagle* from daily to three days per week in each direction.[64] The American Rescue Plan Act of 2021, which was passed by Congress on March 10, 2021, and signed into law on March 11, 2021, included funding to enable Amtrak to fully restore the service of long-distance trains whose frequencies had been reduced in 2020.[65] Amtrak announced on March 10 a plan to recall more than 1,200 furloughed employees and restore its long-distance services to pre-COVID levels through the remainder of FY 2021 and into FY 2022.[66] The *Texas Eagle* resumed daily operation on May 24, 2021, although with one less coach and one sleeping car than had been offered prior to the pandemic, and the Sightseer Lounge car was not returned to the train's consist.[67] When the Omicron variant caused a new increase in COVID-19 cases in January 2022, Amtrak reduced the operation of the *Texas Eagle* to five days per week, then resumed daily service on March 28, 2022.[68] The *Sunset Limited* remained in operation as a tr-weekly train throughout the pandemic.

In FY 2023, ridership on the *Heartland Flyer* had exceeded number of passengers carried in the pre-COVID year of FY 2019. Ridership on the *Texas Eagle* in FY 2023 had reached more than 90% of the pre-COVID level from FY 2019. Ridership on the *Sunset Limited* in FY 2023 had reached more than 80% of the passengers carried in FY 2019.

Table 2-18 presents the annual passenger-miles for each Amtrak train serving Texas. Passenger-miles are influenced by both ridership and the overall length of a route. Although the daily *Heartland Flyer* carried only 6% fewer passengers than the tri-weekly *Sunset Limited* in FY 2023, it recorded 77% fewer passenger-miles that year because the length of the *Heartland Flyer's* route is about one-tenth the length of the *Sunset Limited*'s route.

Table 2-18: Passenger-Miles on Amtrak Routes Serving Texas, FY 2019–2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	12,062,024	7,378,568	7,579,302	11,475,737	13,033,668
Texas Eagle	147,503,037	90,317,214	79,873,295	124,027,867	138,499,273
Sunset Limited	69,407,726	40.923,230	42,295,615	56,266,279	58,464,698

Source: Amtrak

Passenger-miles per train-mile is a measure of utilization derived by dividing service passenger-miles (moving one passenger one mile is one passenger-mile) by route train-miles (moving a train one mile is a train-mile). Table 2-19 presents the passenger-miles per train-mile for each Amtrak train serving Texas. This measure has increased for the *Heartland Flyer* and *Texas Eagle* since the pandemic (although the *Eagle* experienced a slight dip in FY 2023), but has fallen in recent years for the *Sunset Limited*, indicating that passengers on that train are making shorter trips.

64 Amtrak, Updates to Amtrak Service, August 17, 2020.

65 United States Congress, H.R.1319 – American Rescue Plan Act of 2021. Retrieved from: https://www.congress.gov/bill/117th-congress/house-bill/1319/actions.

66 Amtrak. With Increased Demand and Congressional Funding, Amtrak Restores 12 Long Distance Routes to Daily Service, March 10, 2021. Retrieved from: https://media.amtrak.com/2021/03/with-increased-demand-and-congressional-funding-amtrak-restores-12-long-distance-routes-to-daily-service/?fbclid=IwAR1puCtLNnZUhnVIlm1brwGc_oi3z8Bhnvbqen1FEEdbcflKEIHkg-dkzhU.

67 https://texasrailadvocates.org/post/amtraks-texas-eagle-falls-short-on-daily-restored-service-promises.

68 https://texasrailadvocates.org/post/amtrak-texas-eagle-returns-to-daily-service-later-this-month.

Table 2-19: Passenger-Miles per Train-Mile on Amtrak Routes Serving Texas, FY 2019–2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	80	65	74	87	94
Texas Eagle	161	126	136	154	151
Sunset Limited	120	94	100	107	89

**Number presents the average of two consecutive fiscal year fourth quarters.*
Source: FRA Q4 Quarterly Reports on the Performance and Service Quality of Intercity Passenger Train Operations, 2014-2017.

Boardings and alightings at the 19 Amtrak stations in Texas from 2019 to 2023 appear in Table 2-20. The results are identified by service. The daily *Texas Eagle* serves the greatest number of stations in Texas. Served by two popular daily trains and a station offering intercity, commuter rail and transit connection, Fort Worth has the highest ridership in Texas (107,566 in FY 2023). San Antonio, another station with two frequencies, is the next highest with 53,039 riders (FY 2023). Dallas has the third highest ridership at 49,196 (FY 2023).

Overall Amtrak ridership in Texas in FY 2023 exceeded the pre-COVID volume recorded in FY 2019. Nine of 19 stations recorded higher passenger in volumes in 2023 than experienced in 2019, and a tenth station, Fort Worth, reached 99.8% of its pre-COVID volume from 2019. Two other stations, El Paso and San Marcos, reached approximately 95% of their volume in 2019.

Table 2-20: Amtrak Riders in Texas, FY 2019–2023

Station	Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Alpine	*Sunset Limited/Texas Eagle*	5,242	3,010	3,039	3,593	3,599
Austin	*Texas Eagle*	29,525	18,073	15,443	26,665	32,831
Beaumont	*Sunset Limited*	3,651	1,885	1,988	2,251	2,351
Cleburne	*Texas Eagle*	3,747	2,397	1,842	2,945	3,257
Dallas	*Texas Eagle*	44,238	27,272	23,202	40,197	49,196
Del Rio	*Sunset Limited/Texas Eagle*	1,650	883	1,751	2,328	1,817
El Paso	*Sunset Limited/Texas Eagle*	14,362	8,896	8,554	11,896	13,720
Fort Worth	*Heartland Flyer, Texas Eagle*	107,732	64,785	59,393	93,181	107,566
Gainesville	*Heartland Flyer*	6,534	3,943	3,652	5,084	7,497
Houston	*Sunset Limited*	20,460	11,616	12,824	15,833	26,945
Longview	*Texas Eagle*	28,836	18,882	14,082	23,412	44,876
Marshall	*Texas Eagle*	6,694	4,305	3,119	5,279	7,233
McGregor	*Texas Eagle*	5,365	2,890	2,296	3,344	3,639
Mineola	*Texas Eagle*	7,438	3,646	2,761	4,859	6,390

Station	Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
San Antonio	*Texas Eagle, Sunset Limited*	50,272	29,235	29,345	45,419	53,039
San Marcos	*Texas Eagle*	7,553	4,415	3,430	6,130	7,145
Sanderson	*Sunset Limited/Texas Eagle*	225	151	153	198	247
Taylor	*Texas Eagle*	4,978	2,988	2,173	3,570	4,114
Temple	*Texas Eagle*	15,371	8,931	6,533	10,116	13,463
Total		**363,873**	**218,203**	**195,580**	**306,300**	**388,925**
Year over Year Change		-4.6%	-40.0%	-10.4%	56.6%	27.0%

Source: Amtrak

Financial Performance

Amtrak operating revenue by service appears in Table 2-21, and operating expenses (adjusted allocated operating uses) in Table 2-22. Operating revenue includes revenue from ticket purchases and on-board food and beverage sales, state payments to subsidize the operation of state-supported trains, and other revenue; it excludes non cash revenue items (state capital payment amortization); and GAAP income statement items reported with capital results (i.e., project related revenue). Table 2-23 indicates the percent of operating revenue for the *Heartland Flyer* provided by payments from the states of Texas and Oklahoma to support the train. Operating expenses include fully allocated costs, which are allocations of substantial Common and Joint Costs that would continue to be incurred by Amtrak if a particular route was discontinued; these continuing costs would be allocated to other routes if that route were discontinued.

Similar to ridership, the pandemic negatively impacted operating revenue, and required higher payments from the states of Texas and Oklahoma to maintain the operation of the *Heartland Flyer* in (FY 2020/2020). The *Heartland Flyer* maintained daily service throughout the pandemic. By FY 2023, the *Texas Eagle* had exceeded its pre-COVID annual revenue from 2019 and the *Sunset Limited* almost matched its 2019 level. It should be noted that Amtrak undertakes revenue management strategies to maximize ticket revenues despite losses in ridership. Operating expenses for all three routes have increased. Costs in FY 2023, when compared to FY 2019, are 20% higher for the *Texas Eagle*, 30% higher for the *Sunset Limited*, and 43% higher for the *Heartland Flyer*.

Table 2-21: Amtrak Operating Revenue for Routes Serving Texas, FY 2019–2023 ($ millions)

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	$6.0	$6.5	$6.6	$7.0	$7.0
Heartland Flyer state funding percent of operating revenue	*65%*	*79%*	*79%*	*71%*	*68%*
Texas Eagle	$25.4	$17.0	$15.2	$23.3	$26.4
Sunset Limited	$12.0	$7.6	$8.1	$11.1	$11.8

Source: Amtrak

Table 2-22: Amtrak Operating Expenses for Routes Serving Texas, FY 2019–2023 ($ millions)

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	$6.5	$6.9	$7.9	$8.2	$9.3
Texas Eagle	$54.7	$52.4	$37.8	$55.8	$65.4
Sunset Limited	$43.5	$43.1	$48.0	$52.9	$56.7

Notes: Excludes Depreciation, Interest, and Other Post-Employment Benefits.
Source: Amtrak

The revenue/cost ratio by route is shown in Table 2-23. Total revenue is the operating revenue, which includes ticket revenue and revenues from meals, other operating sources, and state payments. The revenue/cost ratio is operating revenue divided by operating expenses. This generates a metric of how much of a route's costs are covered by revenues.

Table 2-23: Revenue/Cost Ratio for Routes Serving Texas, FY 2019–2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	92%	95%	84%	86%	76%
Texas Eagle	46%	39%	40%	42%	40%
Sunset Limited	28%	18%	17%	21%	21%

Note: The revenue/cost ratio is operating revenue divided by operating expenses (not including depreciation, interest or other post-employment benefits).
Source: Amtrak

Note that total revenues for the *Heartland Flyer* include state payments. This is the reason that the revenue/cost ratio exceeds that of the long-distance trains serving Texas. In FY 2023, the states of Texas and Oklahoma together paid approximately $4.8 million to underwrite the *Heartland Flyer*'s operation. If only the *Heartland Flyer's* ticket revenue in FY 2023 of $1.9 million were measured, the revenue/cost ratio for the train that year would be about 24%.

Effective with FY 2014 (October 2013), the Passenger Rail Investment and Improvement Act (PRIIA) mandated that states pick up more of the costs for operating passenger rail routes of 750 miles or less. Under Section 209 of PRIIA, Amtrak adopted a cost-sharing methodology and protocol, the Amtrak Performance Tracking (APT) system in October 2010 to determine and allocate costs for state-supported Amtrak routes. This methodology and protocol was mutually agreed upon by all affected states, except Indiana, and approved by the Surface Transportation Board (STB) in March 2012, with an effective date in April 2012. The result of this new methodology was that states became responsible for funding additional costs associated with operating their state sponsored rail services. As a result of increased state payments, the revenue/cost ratio of the route (as measured by Amtrak) improved. One result of the heightened financial involvement in funding state-sponsored trains is that each participating state has more influence with Amtrak on the planning and operations of the corresponding service plan. Finally, as noted earlier, connections are very important. In the previous decade, *Heartland Flyer* riders making connections to/from the *Texas Eagle* at Fort Worth generated between 15 and 25% of the ticket revenues on the *Heartland Flyer.* This revenue would be lost (and state payments increased) if the *Texas Eagle* were discontinued.

At 40%, the revenue/cost ratio of the *Texas Eagle* is about the same as the rest of Amtrak's long-distance services, which in FY 2023 averaged 50%. Connections are also very important for the *Texas Eagle*. Through service and the connection between the *Texas Eagle* and the *Sunset Limited* at San Antonio accounts for approximately 15 to 20% of the total ticket revenue on the *Texas Eagle* route. Without the *Sunset Limited* connection, the revenue/cost ratio of the *Texas Eagle* would be much lower.

The *Sunset Limited* has one of the lowest revenue/cost ratios in the Amtrak System. There are two major reasons for this performance: its tri-weekly operation (three days per week in each direction) and poor on-time performance. Tri-weekly operation impacts the ability of the service to attract travelers, particularly those making short-distance trips of only a few days, reducing annual revenue without offsetting fixed costs, and also introduces operating inefficiencies. Short-distance riders may find there is no train scheduled on the days they wish to travel. Amtrak's other tri-weekly long-distance train, the *Cardinal*, had a revenue/cost ratio of 31% in FY 2023, the second-lowest after the *Sunset Limited* that fiscal year, whereas Amtrak's daily long-distance trains had revenue/cost ratios between 34% and 1.14%. The second factor is an almost two-decade trend of low on-time performance (as low as 4%) and trains that are hours late. This substantially eroded the customer base for the train. Service suspensions resulting from major storms and flooding in Texas and along the Gulf Coast in FY 2020, 2021, and 2023 also reduced the opportunities to attract riders. Finally, by convention, all of the ticket revenues of the through cars between the *Texas Eagle* and the *Sunset Limited* accrue to the *Texas Eagle* route. The cost of hauling the cars and serving the passengers from San Antonio to Los Angeles accrues to the *Sunset Limited* route. Following this convention avoids the purely arbitrary allocation of ticket revenue and costs between the two routes.

Table 2-24 lists Amtrak's expenditures on goods and services in Texas, including expenditures on salaries, as well as the number of Amtrak employees residing in Texas from FY 2019 through FY 2023.

Table 2-24: Amtrak Expenditures of Goods and Services in Texas, FY 2019–2023

Category	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Good and Services	$27,022,637	$35,660,602	$33,640,120	$54,729,429	$82,666,446
Employee Wages	$15,450,706	$16,228,269	$16,228,269	$20,834,222	$22,696,705
Amtrak Texas Employees	157	153	153	184	207

Source: Amtrak Texas Fact Sheets, 2019-2023

On-Time Performance and Customer Satisfaction

Amtrak and other passenger railroads traditionally define On-time Performance (OTP) as the total number of trains arriving on time at a station divided by the total number of trains operated on that route. A train is considered on time if it arrives at the final destination within an allowed number of minutes, or tolerance, of its scheduled arrival time. Trains are allowed a certain tolerance based on how far they travel.

Section 207 of PRIIA required the establishment of route-specific performance measures and related targets to help determine where passenger rail service improvements are needed. On November 16, 2020, FRA published a final rule establishing metrics and minimum standards for measuring the performance and service quality of intercity

passenger trains, which included a new standard for measuring on-time performance by customer arrivals rather than train arrivals.

OTP Annual Trend

Under the FRA's final rule, the OTP of Amtrak trains is measured using a "customer on-time performance" metric, which measures the percentage of intercity rail passengers who arrive at their detraining point, including intermediate stations, no later than 15 minutes after the published scheduled arrival time. The final rule required Amtrak and its host railroads to certify the Amtrak schedules, which would be used to measure OTP. Performance measuring under the final standards took effect in the first full calendar quarter after May 17, 2021, although not all train schedules had been certified by that date. The customer on-time performance of the three Amtrak services in Texas since 2019 is shown in Table 2-25. Under FRA's final rule, the customer on-time performance minimum standard is 80% for any two consecutive calendar quarters.

Table 2-25: Customer On-Time Performance, Routes Serving Texas, FY 2019–2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	46.9%	68.1%	67.8%	62.3%	60.3%
Texas Eagle	25.5%	42.3%	52.0%	48.9%	54.5%
Sunset Limited	19.8%	29.5%	27.1%	21.2%	34.0%

Source: Amtrak

Prior to adoption of FRA's final rule in 2020, on-time performance had been measured two other ways: All-Stations on-time performance and endpoint on-time performance. The All-Stations on-time performance of the three Amtrak services in Texas since 2019 is shown in Table 2-26. All-Stations on-time performance measures how often a train arrived at each station along its route within 15 minutes of its scheduled arrival.

Table 2-26: All-Stations On-Time Performance, Routes Serving Texas, FY 2019–2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	62.1%	76.0%	74.5%	69.6%	64.6%
Texas Eagle	28.5%	47.7%	53.3%	47.5%	50.8%
Sunset Limited	14.9%	22.4%	29.7%	24.2%	28.2%

Source: Amtrak

The endpoint on-time performance of the three Amtrak services in Texas since 2019 is shown in Table 2-27. Endpoint on-time performance measures how often a train arrived at its final destination on schedule or within a prescribed widow of allowable lateness depending on passenger train type and length of route. Two of the Amtrak routes shown in the table have final destinations in Texas: the southbound Heartland Flyer ends its trip at Fort Worth and the southbound Texas Eagle ends its trip at San Antonio.

Table 2-27: Endpoint On-Time Performance, Routes Serving Texas, FY 2019–2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	43.3%	67.2%	68.5%	57.3%	55.0%
Texas Eagle	33.5%	62.4%	69.4%	53.5%	56.2%
Sunset Limited	21.1%	37.9%	33.8%	26.0%	44.3%

Source: Amtrak

For all three services, FY 2019 represented a low point in reliability, with significant improvements in OTP exhibited over the following four years. The *Texas Eagle's* Customer OTP more than doubled from 2019 to 2023, and the *Sunset Limited's* Customer OTP rose 72% during the same period. Consistent and high on-time performance makes the rail service more attractive to riders, especially those traveling shorter distances.

On December 8, 2022, Amtrak submitted a complaint and petition with the Surface Transportation Board to investigate the OTP on the *Sunset Limited* service.[69] The STB has the authority to investigate when the OTP of an intercity passenger train averages less than 80% for two consecutive quarters. The purpose of the investigation is to determine whether and to what extent delays or failure to achieve the minimum standards are due to causes that could reasonably be addressed by the passenger rail operator or the host railroad. Prior to FY 2023, the *Sunset Limited* had been the lowest ranking long-distance train by OTP, but its significant performance improvement in the most recent year pushed it above two other Amtrak long-distance trains in the rankings.

The *Texas Eagle* performed better than the average Customer OTP for Amtrak long-distance trains in FY 2023, which was 52.5%. By contrast, the *Heartland Flyer's* Customer OTP was below the FY 2023 average for state-supported trains of 74.5%.

Cause of OTP Delays

Causes for Amtrak train delays can be attributed to several reasons including the host railroad, Amtrak itself, or other delays such as grade-crossing collisions. Delays can be grouped into broad categories that represent the key reasons for these delays. These categories are:

- ***Train interference delays*** are related to other train movements in the area. These can be freight trains as well as other Amtrak trains.
- ***Passenger Operating Delays*** are related to equipment turning and servicing, engine failures, passenger train holds for connecting trains and buses, crewing, and detours.
- ***Slow Orders*** are delays from reduced speeds to allow safe operation due to track or signal problems.
- ***Freight railroad operational delays*** are all other freight railroad delays and those related to the railroad infrastructure and/or maintenance work being done on the tracks or signaling systems.

69 https://www.stb.gov/news-communications/latest-news/pr-24-33/#:~:text=On%20December%208%2C%202022%2C%20Amtrak,Pacific%20Railroad%20Company%20(UP).

- ***All other delays*** could include delays caused by the weather and non-railroad third-party factors such as customs and immigration, a bridge opening for waterway traffic, police activity, grade-crossing accidents or loss of power due to a utility company failure.

For contractual purposes, these broad delay categories are further divided and assigned to particular responsible parties. These are listed in Table 2-28.

Table 2-28: Amtrak Delay Categories

Type of Delay	Delay Code	Delay Description
1. Amtrak Responsibility		
Passenger Related	HLD	All delays related to passengers, checked baggage, large groups, etc.
Hold for Connection	CON	Holding for connections from other trains or buses
Passenger Related	ADA	All delays related to disabled passengers, wheelchair lifts, guide dogs, etc.
Crew and System	SYS	Delays related to crews including lateness, lone-engineer delays
Locomotive Failure	ENG	Mechanical failure on engines
Servicing	SVS	All switching and servicing delays
Total Other		All other delays: delays/miscellaneous; car failure; initial terminal delay; late train make-up; injury delay; mail/baggage work
2. Host Railroad Responsibility		
Freight Train Interference	FTI	Delays from freight trains
Slow Order Delays	DSR	Temporary slow orders, except heat and cold orders
Routing	RTE	Routing/dispatching delays including diversions, late track bulletins, etc.
Signal Delays	DCS	Signal failure or other signal delays, wayside defect detector false alarms, defective road crossing protection, efficiency tests, drawbridge stuck open
Maintenance of Way	DMW	Maintenance of way delays including holds for track repairs or maintenance of way foreman to clear
Total Other		All other delays: passenger train interference, detours, debris
3. Other Minutes of Delay: Third-Party Responsibility		
Weather-Related	WTR	All severe weather delays, landslides or washouts, earthquake, heat or cold orders
Trespasser Incident	TRS	Trespasser incidents including road crossing incidents, trespasser/animal strikes, vehicles suck on track ahead
Police Related Delay	POL	Police/fire department holds on right-of-way or on board trains
Unused Recovery Time	NOD	Waiting for scheduled departure time at a station
Total Other		All other delays: drawbridge openings, customs delays, bridge strikes

Source: FRA

Table 2-29 provides detailed information on specific delays for the *Heartland Flyer* by responsible party for the fourth quarter of fiscal years 2019 through 2023. The table shows the percentage of delays by responsible party and the minutes of delay for the top delays categories. Note that in FY 2019 and FY 2020, delay was calculated as

minutes of delay per 10,000 train-miles, whereas in FY 2021 through 2023, delays was calculated in minutes. The yearly pattern is quite consistent, with Amtrak issues generating about 5 to 20% of the delays, the host railroad about 80 to 90% of the delays, and all other factors generating about 2 to 6% of the delays.

Table 2-29: Heartland Flyer Delays by Responsible Party, 2019–2023

	Q4 FY 2019	Q4 FY 2020	Q4 FY 2021	Q4 FY 2022	Q4 FY 2023
Total Minutes	**2,401***	**1,695***	**7,166**	**10,426**	**6,668**
Percent of Delay - Amtrak	**16%**	**21%**	**7%**	**8%**	**14%**
Percent of Delay – Freight	**84%**	**93%**	**91%**	**88%**	**80%**
Percent of Delay - Other	**	**	**2%**	**4%**	**6%**
Amtrak Delays	**378***	**117***	**506**	**816**	**945**
Passenger Holds	85	**	179	298	296
Passenger Related ADA	**	27	177	244	290
Locomotive Failures	**	46	101	33	81
Crew-Related	107	**	45	112	40
All Other	186	44	4	129	238
Host Railroad Delays	**2,023***	**1,578***	**6,535**	**9,141**	**5,343**
Slow Order Delays	1,334	1,042	4,186	4,569	3,837
Freight Train Interference	567	401	1,911	4,176	841
All Other	122	135	438	396	665
Other Minutes of Delay	**	**	**125**	**469**	**380**

**Minutes of Delay per 10,000 Train-Miles*
***Data unavailable*
Source: FRA, Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, 4Q for FY19-23

Table 2-30 provides detailed information on specific delays for the *Texas Eagle* and *Sunset Limited* by responsible party for the fourth quarter of Fiscal Year 2023. The table identifies the percentage of delays by responsible party and the minutes of delay for the top delay categories. The pattern among the long-distance trains is quite consistent, with Amtrak issues generating about 20% of the delays, the host railroads between 60 and 70% of the delays, and all other factors generating about 10 to 20% of the delays. All Other Delays represents the majority of the delay minutes in the Amtrak category. This pattern of delays by responsible party has also been quite consistent over the years.

Table 2-30: Texas Eagle and Sunset Limited Delays by Responsible Party, 4Q FY 2023

	Texas Eagle	Sunset Limited
Total Minutes	**67,608**	**41,773**
Percent of Delay - Amtrak	**20%**	**20%**
Percent of Delay – Host Railroad	**62%**	**67%**
Percent of Delay - Other	**18%**	**13%**
Amtrak Delays	**13,301**	**8,383**
Crew-Related	3,443	1,906
Servicing	3,327	1,876
All Other	6,531	4,601
Host Railroad Delays	**41,791**	**28,082**
Freight Train Interference	21,496	14,608
Slow Orders	11,426	6,589
All Other	8,869	6,885
Other Minutes of Delay	**12,516**	**5,308**

Source: FRA, Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, Q4 FY2023

Customer Satisfaction Indicator

The Passenger Rail Investment and Improvement Act of 2008 required the development of metrics and minimum standards for measuring the performance and service quality of intercity passenger trains. Service quality is measured through Amtrak's Customer Satisfaction Indicator (CSI) customer survey process. CSI Scores measure the satisfaction by passengers, on an 11-point scale, of a particular aspect of their trip. For example, a CSI score of 80 means 80% of respondents rated the aspect of their trip in the top four boxes of the 11 steps of the scale.

There six broad customer satisfaction categories are measured as part of the CSI survey. These categories are:

- *Overall Service* is the measure for the respondents rating for their overall trip experience.
- *Amtrak Personnel* is the measure for the respondents rating Amtrak reservations personnel, station personnel, train crew and on-board service crew.
- *Information Given* is the measure for the respondents rating all information they received pertaining to their trip.
- *On-Board Comfort* is the measure for the respondents rating seat or sleeping compartment comfort, air temperature and ride quality.
- *On-Board Cleanliness* is the measure for the respondents rating the cleanliness of the train and on-board restrooms.

- *On-Board Food Service* is the measure for the respondents rating the quality of the food and snacks purchased on-board the train.

Table 2-31 shows the Customer Satisfaction Indicator (CSI) scores for the three Texas services for the fourth quarter of FY 2023. With the exception of On-Board Comfort and On-Board Food Service, the *Heartland Flyer* exceeded the 2010 standards. The scores represent adjusted survey responses, after Amtrak has removed the surveys from passengers who arrived at their destinations excessively late (30 minutes late or more for state-supported routes and 120 minutes late or more for long-distance routes) The *Texas Eagle* and *Sunset Limited* met the customer satisfaction goal for Amtrak Personnel and on-board cleanliness but fell short in the other categories, especially for on-board comfort and information given.

Table 2-31: Customer Satisfaction Index Scores for Amtrak Trains Serving Texas, Fourth Quarter 2023

Service Metric	2010 Standard	Routes		
		Heartland Flyer	*Texas Eagle*	*Sunset Limited*
Overall Service	**82**	94	77	81
Amtrak Personnel	**80**	94	86	89
Information Given	**80**	91	76	79
On-Board Cleanliness	**80**	91	80	85
On-Board Comfort	**80**	93	74	76
On-Board Food Service	**80**	84	64	80

Red: CSI Scores below standard.
Source: FRA Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, Fourth Quarter 2023.

Recent Improvements at Amtrak Stations

Amtrak continues to make improvements to its intercity passenger rail stations in Texas. Detailed information on Amtrak passenger stations was presented in Passenger Rail Network. Significant improvements in recent years have been made at stations in Sanderson, Del Rio, and Longview. Amtrak opened a brand-new station facility at Sanderson in 2022 featuring an ADA compliant platform, a new open-air passenger shelter with shaded bench seating, and new parking lots and access roads. The station serves the *Sunset Limited/Texas Eagle*. In Del Rio, which also serves the *Sunset Limited/Texas Eagle*, Amtrak brought the station into full ADA compliance in 2023, constructing a new 650-foot-long concrete platform as well as accessible parking stalls and walkways, installing a mobile wheelchair lift, LED light fixtures along the platforms and walkways, and upgrading station signage.

The City of Longview completed a restoration in 2014 of its historic former Missouri Pacific station, built in 1940. The city acquired the station building from UP and undertook a renovation that included restoring the waiting room and ticket office for use by Amtrak and rail passengers. In 2022, Amtrak completed accessibility improvements at the station that included replacing the previous asphalt platform with a new concrete platform, constructing accessible ramps and walkways between the platform and the multimodal center, and installing LED lighting and passenger information display systems. The station serves the *Texas Eagle*.

Commuter Rail Performance Evaluation

This section provides an overview of the performance metrics associated with commuter rail operations in Texas. It presents available information on ridership, operating performance, and financial performance results for existing commuter rail operations in Dallas, Fort Worth, Austin, and Denton County.

Trinity Railway Express

Table 2-32 presents Trinity Railway Express (TRE) ridership and train operations data for FY 2019 through FY 2023. Ridership and passenger-miles have fallen by half over the past 5 years, owing to changing travel patterns resulting from the COVID-19 pandemic.

Table 2-32: TRE Ridership and Operations Data, FY 2019–2023

Category	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Annual Ridership	2.0 million	1.3 million	795,300	1.1 million	1.1 million
Average Weekday Ridership	7,100	4,300	2,700	3,600	3,870
Annual Revenue Vehicle Miles	1,633,624	1,404,961	1,341,985	1,349,872	1,195,239
Annual Passenger-Miles	35,381,640	21,904,126	12,709,583	18,184,252	18,537,472

Source: DART Reference Books, 2022-2024

Table 2-33 presents TRE's average weekday ridership by station, for FY 2019 through FY 2023. The system's top two stations are the two downtown Dallas stations. Historically, the third busiest station had been the transfer station with a DFW Airport van connection, but since 2021, Fort Worth Central has become the third busiest, and the Fort Worth T&P Station, now fourth busiest has also eclipsed the CentrePort/DFW Station in weekly ridership.

Table 2-33: TRE Average Weekday Ridership by Station, FY 2019–2023

Station	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Fort Worth T&P Station	660	440	310	390	384
Fort Worth Central Station	670	440	320	420	452
Richland Hills	540	310	170	240	278
Hurst/Bell	460	270	140	210	217
CentrePort/DFW	840	460	240	340	363
West Irving	310	210	160	180	182
South Irving	550	350	250	320	340
Medical Market Center	560	340	250	290	310
Dallas Victory Station	900	570	270	480	530
Dallas EBJ Union Station	1,590	980	640	740	796
Total Daily	**7,080**	**4,370**	**2,750**	**3,610**	**3,852**

Source: DART Reference Books, 2022-2024

Table 2-34 presents Trinity Railway Express financial performance data for FY 2020 through FY 2023. Average subsidy per passenger doubled during the pandemic years of 2021 and 2022, and the farebox recovery ratio declined over the same period. Both metrics improved in FY 2023 as riders began returning to the system.

Table 2-34: TRE Financial Performance Data, FY 2020–2023

Category	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Farebox Recovery Ratio	24.2%	16.4%	8.9%	3.8%	4.1%
Subsidy per Passenger	$12.76	$16.43	$36.28	$34.16	$26.52

Source: DART Reference Books, 2022-2024

Table 2-35 presents TRE's annual on-time performance for FY 2019 through FY 2023. On-time performance consistently remains in the mid to high 90s and has steadily improved over the past 5 years.

Table 2-35: TRE On-Time Performance, FY 2019–2023

Category	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
On-Time Performance	94.3%	96.4%	98.5%	98.0%	99.1%

Source: DART Reference Books, 2022-2024

Table 2-36 presents the results of Trinity Railway Express customer satisfaction measurements for years 2019 through 2023, as measured in complains per 100,000 passengers. Overall satisfaction improved from 2019 through 2023.

Table 2-36: TRE Customer Satisfaction: Complaints per 100,000 Passengers, 2019–2023

Category	2019	2020	2021	2022	2023
TRE Complaints per 100K Passengers	6.0	6.4	4.3	5.5	3.4

Source: DART Reference Books, 2022-2024

Denton County A-Train

Table 2-37 presents DCTA A-Train ridership and train operations data for FY 2018 through FY 2022. Ridership and passenger-miles fell significantly during the pandemic years, then grew slightly in 2022, as riders began to return the A-Train for work and discretionary trips.

In 2020, DCTA reduced A-Train service, suspending all Saturday service and reducing weekday service to every 60 minutes, eliminating 30-minute headways during peak periods. In 2021, regular weekday service resumed and Saturday service was reintroduced on more frequent headways of 60 minutes in each direction to capture the post-pandemic growth of weekend discretionary travel.

Table 2-37: DCTA A-Train Ridership and Operations Data, FY 2018–2022

Category	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Annual Ridership	419,335	393,700	221,316	113,440	175,637
Annual Train-Miles	343,828	349,389	292,006	259,623	391,406
Annual Passenger-Miles	5,901,029	5,493,329	3,039,904	1,531,530	2,505,780

Source: DCTA

Table 2-38 presents A-Train's annual boardings and alightings by station, for FY 2018 through FY 2022. The A-Train's two endpoint stations are the top stations on the line, and the Hebron station is third busiest.

Table 2-38: DCTA A-Train Annual Boardings and Alightings by Station, FY 2018–2022

Boardings	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Downtown Denton Transit Center	111,196	112,459	60,561	32,497	51,844
MedPark Station	42,414	36,451	21,349	9,719	18,491
Highland Village/Lewisville Lake	26,551	24,154	13,644	5,348	9,570
Old Town	29,450	26,828	16,693	8,678	15,820
Hebron	42,820	39,932	25,393	12,942	19,504
Trinity Mills Carrollton	166,894	153,876	83,676	44,256	60,408
Total	419,335	393,700	221,316	113,440	175,637
Alightings	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Downtown Denton Transit Center	104,427	109,445	60,605	30,783	48,261
MedPark Station	41,067	33,030	18,544	10,136	18,212
Highland Village/Lewisville Lake	27,654	23,188	12,259	4,986	9,814
Old Town	29,772	26,902	16,632	9,313	16,041
Hebron	44,781	41,030	26,298	14,871	21,341
Trinity Mills Carrollton	171,634	160,105	86,978	43,351	61,968
Total	419,335	393,700	221,316	113,440	175,637

Source: DCTA

Table 2-39 presents DCTA's A-Train financial data for FY 2018 through FY 2022. A change in fare structures enacted in early 2019 generated revenue gains that offset rising costs that year, creating a higher farebox recovery. Ridership declines during the pandemic significantly increased subsidy per passenger in 2021 and 2022.

Table 2-39: DCTA A-Train Financial Data, FY 2018–2022

Category	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Fare Revenue	$13,680,466	$15,446,441	$478,220	$262,057	$278,627
Operating Expenses	$13,680,466	$15,446,441	$14,086,602	$13,623,014	$16,176,981
Farebox Recovery Ratio	41%	48%	34%	19%	17%
State Operating Assistance	$0	$0	$0	$0	$0
Operating Subsidy per Rider	$32.62	$39.23	$63.65	$120.09	$92.10

Source: DCTA

Table 2-40 presents DCTA A-Train's annual on-time performance for FY 2018 through FY 2022. On-time performance consistently remains in the high 90s and has not dipped below 98% in any of the past five fiscal years.

Table 2-40: DCTA A-Train Annual On-Time Performance, FY 2018–2022

Category	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
On-Time Performance	99.07%	98.17%	98.61%	98.58%	98.25%

Source: DCTA

Austin Capital Metro

Table 2-41 presents the CapMetro Rail Red Line ridership and train operations data for FY 2018 through FY 2022. Ridership fell 68% and passenger-miles fell 75% between 2018 and 2022 as a result of the pandemic. However, both metrics doubled from 2021 to 2022, as riders returned to the system post-pandemic when area businesses began requiring more workers to return to the office. Train-miles grew in 2022 to support special event schedules (e.g., Austin FC-Q2 Stadium, Austin City Limits, South by Southwest, etc.) as conditions improved.

Table 2-41: CapMetro Rail Red Line Ridership and Operations Data, FY 2018–2022

Category	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Annual Ridership	811,242	729,507	377,703	256,982	474,354
Annual Train-Miles	310,272	581,528	532,347	532,187	673,363
Annual Passenger-Miles	12,269,528	11,187,645	5,491,355	3,044,287	6,415,639

Source: Capital Metro National Transit Database agency profiles, 2018-2022

Table 2-42 presents CapMetro Rail's Red Line financial data for FY 2018 through FY 2022. Fare revenue fell 75% and average subsidy per passenger quadrupled from 2018 to 2021 during the pandemic. However, fare revenue more than doubled in 2022 from the previous year as riders began returning to the Red Line.

Table 2-42: CapMetro Rail Red Line Financial Data, FY 2018–2022

Category	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Fare Revenue	$1,927,996	$1,526,429	$748,076	$514,768	$1,109.896
Operating Expenses	$23,184,423	$19,319,510	$22,536,132	$28,286,746	$31,867,229
Farebox Recovery Ratio	8.3%	7.9%	3.3%	1.8%	3.5%
State Operating Assistance	$0	$0	$0	$0	$0
Operating Subsidy per Rider	$26.21	$24.39	$57.70	$108.09	$64.83

Source: Capital Metro National Transit Database agency profiles, 2018-2022

The Red Line's average annual on time performance was 89.7% in calendar year 2022 and grew to 92.9% in calendar year 2023.

TEXRail

Table 2-43: presents TEXRail ridership and train operations data for FY 2019 (the first year of service) through FY 2022. Ridership and passenger-miles in 2022 have exceeded the partial opening year level and have increased from the low point of 2021 during the pandemic. Ridership on TEXRail is higher on weekends than during the week, as travelers use the service to travel to weekend festivals in the Fort Worth area.

Table 2-43: TEXRail Ridership and Operations Data, FY 2019–2022

Category	FY 2019	FY 2020	FY 2021	FY 2022
Annual Ridership	407,444	340,008	304,545	530,482
Average Weekday Ridership	1,417	910	797	n/a
Average Saturday Ridership	2,047	1,116	1,081	n/a
Average Sunday Ridership	1,645	883	819	n/a
Annual Revenue Vehicle Miles	1,336,029	2,320,998	2,444,809	2,472,095
Annual Passenger-Miles	6,558,657	5,379,214	4,652,049	8,134,341

Source: Trinity Metro 2022 Reference Guide and NTD agency profiles, 2019-2022

Table 2-44 presents TEXRail's average daily ridership (boardings) by station, for FY 2019 through FY 2021. On weekdays, the system's top station is the DFW Airport, followed by the two downtown Fort Worth stations. However, on Saturday, ridership at the Grapevine / Main station surpasses the DFW Airport station to take the top spot.

Table 2-44: TEXRail Average Daily Ridership by Station, FY 2019–2021

Station	FY 2019			FY 2020			FY 2021		
	Avg. Week-day	Avg. Sat.	Avg. Sun.	Avg. Week-day	Avg. Sat.	Avg. Sun.	Avg. Week-day	Avg. Sat.	Avg. Sun.
DFW Airport Terminal B	318	346	349	229	204	238	207	185	230
DFW Airport North	21	25	18	13	11	7	12	12	7
Grapevine/Main	221	451	298	109	221	119	101	256	133
NRH/Smithfield	196	288	224	107	149	92	87	153	87
NRH/Iron Horse	93	139	111	69	81	60	64	82	54
Mercantile Center	67	64	54	60	53	42	58	53	35
North Side	53	83	76	35	45	34	32	41	29
Fort Worth Central	247	341	274	153	185	157	122	152	121
Fort Worth T&P	201	311	241	134	165	136	115	147	123

Source: Trinty Metro Reference Guide, 2022

Table 2-45 presents the TEXRail financial performance data for FY 2019 through FY 2022. Average subsidy per passenger grew during the pandemic years of 2020 and 2021, and the farebox recovery ratio declined over the same period. Both metrics improved in FY 2022 as riders began returning to the system.

Table 2-45: TEXRail Financial Data, FY 2019–2022

Category	FY 2019	FY 2020	FY 2021	FY 2022
Fare Revenue	$2,136,316	$1,726,288	$922,090	$1,414,017
Operating Expenses	$19,189,368	$25,000,489	$30,951,462	$32,555,750
Farebox Recovery Ratio	11.1%	6.9%	3.0%	4.3%
Operating Subsidy per Rider	$41.87	$68.46	$98.58	$58.73

Source: Trinity Metro National Transit Database agency profiles, 2019-2022

TEXRail's average annual on-time performance was 99.8% in FY 2021 and 98.3% in FY 2023, with both years exceeding the system's target OTP of 97%.

In 2021, Trinity Metro undertook a customer satisfaction survey of riders on the agency's buses and trains. In the survey, 84.4% of TEXRail passengers rated their experience as Very Satisfied or Satisfied, while 7.2% rated their experience as Dissatisfied or Very Dissatisfied, and 8.3% selected Don't Know as their answer.

Public Financing for Rail Projects

Texas, like many states, has a constitutional limitation that prohibits most direct state transportation fund expenditures from being used for rail projects. TxDOT's financial strategy to support freight and passenger rail projects recognizes the restricted role the state could play in improving rail transportation options and emphasizes the need for careful planning, accessing federal funds, and reliance on public-private partnerships. TxDOT relies on intermittent budget appropriations and revenue initiatives such as carload taxes on its state-owned South Orient Rail Line to develop rail improvement projects, often with several federal, state and local partners.

The following is a summary of current and prospective rail capital and operating funding sources available to the public sector for providing and improving rail operations in the state.

State Rail Funding Programs

The following state programs have been funded or have the potential to fund eligible rail improvements.

- TxDOT Highway-Railroad Grade Crossing Safety Program
  - TxDOT maintains funding program for two types of grade crossing improvements. The At-Grade Crossing Replanking Program provides approximately $3.5 million annually to maintain and improve grade crossing surfaces. The Railroad Signal Maintenance Program provides approximately $1.1 million annually for railroad signal maintenance payments to railroads.
- Rail Relocation and Improvement Fund
  - The purpose of this fund, created through a constitutional amendment in 2005, is to relocate and improve public or private rail facilities with the intention of improving freight mobility and relieving traffic congestion. In 2023, a rider was proposed that would have directed $200 million in General Revenue Funds to the Rail Relocation and Improvement Fund.[70] The rider did not advance out of the Texas House. To-date, this is the only budget appropriation proposal that has been made available for the possibility of implementing projects.
- Texas State Infrastructure Bank
  - The Texas State Infrastructure Bank is a low-cost tool for local governments to finance local transportation projects at competitive interest rates. Projects must be consistent with transportation plans developed by local metropolitan planning organizations (MPOs). TxDOT manages the State Infrastructure Bank program as a revolving loan fund.
- Texas Emissions Reduction Program
  - This program is available for projects that reduce air pollution and engine idling through congestion relief at rail intersections in non- or near non-attainment areas and locomotive emissions remediation. The program has been utilized to retrofit locomotives in the Corpus Christi and Houston areas.
- Texas Economic Development Bank

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70 https://www.texasrailadvocates.org/post/texas-house-appropriation-request-filed-for-200m-to-activate-the-rail-relocation-improvement-fund

- The Economic Development Bank provides incentives to business wishing to relocate or expand in Texas, as well as assist local communities in accessing capital for economic development. Funds can be utilized for rural rail development projects.

- Transportation Reinvestment Zones
  - This funding mechanism is designed to allow the development and financing of transportation projects by incrementally increasing property tax revenue collected inside the designated zone. This mechanism has allowed metropolitan areas operating rail facilities to vary funding options.
- Railroad Grade Crossing and Replanking Program
  - Replacement of rough railroad crossing surfaces on the state highway system (approximately 50 installations per year statewide). Project selection based on conditions of the riding surface (highway, railroad, and drainage) and benefit to cost per vehicle using the crossing. Per the 2023 Unified Transportation Program, the Railroad Grade Crossing and Replanking Program was allocated $3.5 million for FY 2023 through FY 2032. [71]
- Railroad Signal Maintenance Program
  - Financial contributions to each railroad company based on number of state highway system crossings and type of automatic devices present at each crossing. Per the 2023 Unified Transportation Program, the Railroad Signal Maintenance Program was allocated $1.1 million for FY 2023 through FY 2032. [72]

Federal Rail Funding Programs

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA – also known as the Bipartisan Infrastructure Law [BIL]), a comprehensive legislative package establishing more than $1.2 trillion in US infrastructure investments and establishing significant programs and policies to guide the development of infrastructure improvements.

Pertinent to transportation and rail, the IIJA funds existing discretionary programs administered by the U.S. Department of Transportation (USDOT) at markedly higher levels, and creates authorization for new discretionary programs aimed at delivering improvements to the nation’s transportation infrastructure, including highways, freight rail, passenger rail, transit systems, multimodal facilities, and ports.

The IIJA significantly increased the authorizations, and in some instances provided advance appropriations, for existing discretionary programs that fund freight rail projects, both for those programs administered by the Office of Multimodal Freight Infrastructure and by the FRA. For instance, USDOT competitive discretionary grant programs including the Consolidated Rail Infrastructure and Safety Improvements program (CRISI), Infrastructure for Rebuilding America (INFRA) and Better Utilizing Investments to Leverage Development (BUILD – now part of the National Infrastructure Project Assistance Program) all received substantial funding increases, with at least $18 billion available over five years just through those programs, at appropriated funding levels. Additional funding is authorized but subject to future appropriations.

71 https://ftp.txdot.gov/pub/txdot/tpp/utp/utp-2023.pdf.
72 https://ftp.txdot.gov/pub/txdot/tpp/utp/utp-2023.pdf.

Notably, IIJA also established new programs targeting rail improvements, including the Railroad Crossing Elimination Program, to be administered by the FRA. The IIJA authorized and appropriated $300 million annually, over the five-year authorization, for a total of $1.5 billion available through Fiscal Year (FY) 2026 to fund highway-rail or pathway-rail grade crossing improvement projects, including rail line relocation, crossing elimination, and installation of advanced signaling, warning devices, and signage.

The IIJA also delivers funding and establishes program requirements designed to support investment in and expansion of the nation's passenger rail network.

Select provisions of the IIJA relevant to the potential establishment of passenger rail in Texas include:

- Establishment of a competitive grant program that makes available federal funding to support the establishment of, and pay the select administration expenses of, interstate rail compacts (modeled after the Southern Rail Commission / Gulf Coast Working Group) (Section 22306).
- Establishment of a program to identify, add and improve intercity passenger rail corridors. Corridors identified would work with USDOT, states and relevant stakeholders to prepare planning documentation supporting the establishment or improvement of services (Sec. 22308) – see FRA Corridor Identification and Development Program.[73] Seven Corridor Identification and Development Program studies involving Texas were selected by FRA:
    - Texas Triangle: Dallas-Fort Worth-Houston Intercity Passenger Rail Corridor
    - Houston to San Antonio Corridor
    - Heartland Flyer Extension
    - I-20 Corridor Intercity Passenger Rail Service
    - Daily Sunset Limited Service
    - Amtrak Texas High-Speed Rail Corridor
    - Fort Worth to Houston High-Speed Rail Corridor

FRA Competitive Discretionary Grant Programs

To develop safety improvements and encourage the improvement and expansion of passenger and freight rail infrastructure and services, the FRA supports the nation's rail network through a variety of competitive and dedicated grant programs. These include:

- Consolidated Rail Infrastructure and Safety Improvements Program (CRISI)
    - The CRISI program provides funding for capital projects that will improve passenger and freight rail transportation systems in terms of safety, efficiency, and/or reliability.
- Railroad Crossing Elimination Program (RCE)
    - The Railroad Crossing Elimination Program (RCE) is a new, competitive discretionary grant program established under the IIJA that provides funding for highway-rail or pathway-rail grade crossing improvement projects that focus on improving the safety and mobility of people and goods.

73 Federal Railroad Administration, Corridor Identification and Development Program. Retrieved from: https://railroads.dot.gov/corridor-ID-program.

- Federal-State Partnership for Intercity Passenger Rail (FSP)
  - The FSP program provides funding for capital projects that reduce the maintenance (state of good repair) backlog, improve performance, and/or expand or establish new intercity passenger rail service.

FRA Financing Programs

The FRA, through the Build America Bureau, offers two loan financing programs to support railroad capital projects:

- Transportation Infrastructure Finance and Innovation Act (TIFIA)
  - The TIFIA program provides credit assistance for qualified projects of regional and national significance. Many large-scale, surface transportation projects -- highway, transit, railroad, intermodal freight, and port access -- are eligible for assistance. Eligible applicants include state and local governments, transit agencies, railroad companies, special authorities, special districts, and private entities. The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital. Each dollar of federal funds can provide up to $10 in TIFIA credit assistance and support up to $30 in transportation infrastructure investment.
- Railroad Rehabilitation & Improvement Financing (RRIF)
  - Under this program, the FRA Administrator is authorized to provide direct loans and loan guarantees up to $35.0 billion to finance development of railroad infrastructure. Up to $7.0 billion is reserved for projects benefiting freight railroads other than Class I carriers. Direct loans can fund up to 100% of a railroad project with repayment periods of up to 35 years and interest rates that are equal to the cost of borrowing to the government. Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers who intend to construct a new rail connection.

Maritime Administration Competitive Discretionary Grant Programs

- Port Infrastructure Development Program (PIDP)
  - Funds for the PIDP are awarded on a competitive basis by the USDOT Maritime Administration (MARAD) to projects that improve the safety, efficiency, and/or reliability of the movement of goods into, out of, around, or within a port. PIDP grants support efforts by ports and industry stakeholders to improve port, and related freight, infrastructure to meet the nation’s freight transportation needs and ensure our port infrastructure can meet anticipated freight volume growth. The PIDP provides funding to ports in both urban and rural areas for planning and capital projects. It also includes a statutory set-aside for small ports to continue to improve and expand their capacity to move freight reliably and efficiently and support local and regional economies.

USDOT Competitive Discretionary Grant Programs

- Multimodal Project Discretionary Grant (MPDG)
  - Mega Grant Program

        - The Mega Program (the National Infrastructure Project Assistance program) supports large, complex projects (with total costs greater than $100 million) that are difficult to fund by other means and likely to generate national or regional economic, mobility, and/or safety benefits.
    - Infrastructure for Rebuilding American (INFRA)
        - The INFRA Program provides funding for highway and freight projects of national or regional significance. USDOT seeks INFRA applications for projects that apply innovative technology, delivery, or financing methods with proven outcomes to deliver projects in a cost-effective manner.
    - Rural Surface Transportation Grant
        - The Rural Surface Transportation Grant Program supports projects that improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.
    - Better Utilizing Investments to Leverage Development (BUILD)
        - The BUILD Program can support roads, bridges, transit, rail, ports or intermodal transportation. Previously known as the RAISE and TIGER Discretionary Grants, Congress has dedicated nearly $14.3 billion for 15 rounds of National Infrastructure Investments to fund projects that have a significant local or regional impact.

Federal Highway Administration Formula Funding

- Section 130 Railway-Highway Crossings Program (RCP)
    - The Section 130 Program provides funds for the elimination of hazards at railway-highway crossings. The funds are set-aside from the USDOT Federal Highway Administration (FHWA) Highway Safety Improvement Program (HSIP) apportionment and the funds are apportioned to States by formula.
    - Texas Section 130 funds are administered by the TxDOT x staff. TxDOT staff prioritize safety upgrades to public rail/highway crossings and the programming of funds for the work done to maintain and upgrade the crossings.

Ongoing Projects for Safety and Security Improvements

Rail safety is an important issue for both railroads and state departments of transportation. Rail safety affects the well-being of railway workers and the public. It also has a major impact on the efficiency of railroad operations. Increased attention has also focused on the safe movement of hazardous materials by rail, especially the movement of crude oil. Rail security has seen increased attention due to the potential for disruption of the transportation system or acts, which could place large numbers of citizens at risk. This section describes rail safety and security efforts in Texas.

Rail Safety and Security Programs in Texas

Rail safety requirements are provided through a combination of federal and state laws. Most safety- related rules and regulations fall under the jurisdiction of the FRA, as outlined in the Rail Safety Act of 1970 and other legislation, such as the most recent Rail Safety Improvement Act of 2008. FRA's rail safety regulations can generally be found in Title 49 Code of Federal Regulations Parts 100-299.

The state's rules on rail safety were previously under the jurisdiction of the Texas Railroad Commission, but were transferred to the TxDOT in 2005 by the 79th Texas Legislature.

Texas has adopted federal safety standards relating to railroad track, equipment, operating practices, signals, and train control by reference. In addition to federal regulations, state regulations prescribe standards for the horizontal and vertical clearance of structures over and alongside railway tracks, sight distances at non-signalized grade crossings, and exemptions for certain rail-related structures. Monthly reports of excess hours of service required by federal regulations must also be submitted to TxDOT. Railroads must indicate points of contact for rail operations within the state and provide upon request copies of the railroad's operating rules, timetables, and special instructions; any amendments to a railroad's operational tests and inspections; and copies of programs for employee instruction. Regulations also require railroads to file and maintain a map, list, or chart that indicates the location of wayside detectors in Texas. Railroads are required to report to TxDOT, by telephone or fax, any accidents or incidents that meet certain criteria, such as an incident or occurrence involving railroad on-track equipment that results in the death of any railroad passenger or railroad employee.

TxDOT rail safety investigators conduct safety inspections of railroad infrastructure, facilities, and equipment. Texas participates in the FRA's Rail State Safety Participation Program under 49 CFR Part 212 which allows states to enter into an agreement with FRA for the delegation of specified authority. This includes investigative and surveillance authority regarding all or any part of Federal railroad safety laws.

TxDOT has inspectors in each safety discipline: track, which also includes bridges; motive power and equipment; operating practices; signal and train controls; and hazardous materials. Inspections are conducted in cooperation with FRA. Inspectors are assigned to specific regions across the state to achieve comprehensive inspection coverage, quicker accident and complaint response time, and greater operational efficiency. Specific territorial boundaries are established so state and federal inspectors do not conduct overlapping inspections.

TxDOT rail safety investigators are always on-call to respond to rail emergencies including crossing accidents, derailments, and hazardous material releases. TxDOT prioritizes inspection activities based on risk assessment and analysis of historical data. The goal of this proactive approach is to reduce rail incidents and accidents and to focus inspection efforts at high-risk locations.

The FTA created the State Safety Oversight (SSO) Program to improve rail transit safety and security. The oversight agency (TxDOT) is required to prepare a program standard, which is a written document developed by the oversight agency that describes the policies, objectives, responsibilities, and procedures used to provide Rail Transit Agencies' safety and security oversight. The Rail Fixed- Guideway Systems (RFGS) affected by this program include any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, or automated guideway operating within the state's jurisdiction that:

- Is not regulated by the FRA.
- Is included in FTA's calculation of fixed-guideway route miles or receives funding under FTA's formula program for urbanized areas (49 U.S.C. 5336).
- Has submitted documentation to FTA indicating its intent to be included in FTA's calculation of fixed-guideway route miles to receive funding under FTA's formula program for urbanized areas (49 U.S.C. 5336).

Detailed information about the program can be found in the August 2023 State Safety and Security Oversight Program Standard.[74]

Over the past decade, there has been a general downward trend for rail-related incidents, injuries and, deaths despite the substantial growth in population, registered vehicles, mile traveled and rail traffic. TxDOT continues to strive to further improve upon this trend by focusing its safety miles program on core essential principles: educate, enforce, evaluate, and engineer.

Operation Lifesaver, established in 1972, is a non-profit educational organization for highway-rail crossing safety and rail trespass prevention. Texas has an active chapter of Operation Lifesaver. This organization promotes safety through education of both drivers and pedestrians to make safe decisions at crossings and around tracks, promoting enforcement of traffic laws related to crossing signals and trespass, and by encouraging continued engineering research and innovation to improve the safety of railroad crossings. TxDOT, in coordination with Texas Operation Lifesaver, provides rail safety presentations at schools, employers, and communities throughout the state. TxDOT and the Texas A&M Transportation Institute (TTI) have a liaison that works with the statewide Operation Lifesaver coordinator.

Also assisting in rail safety and security in Texas is the TTI Rail Research department, which focuses on rail research and safety within the state. Not only does TTI Rail Research host a bi-annual National Highway-Rail Grade Crossing Safety Training Conference, it also has active researchers exploring these areas within freight and passenger rail:[75]

- Technical and Planning Policy
- Freight and Passenger Rail
- Interaction of Rail with Other Freight Modes
- Rail-Highway Interaction
- Evaluation of Innovative Technologies
- Rail Safety Research
- High Speed Rail
- Movement of Hazardous Materials

Various aspects of rail transportation can raise concerns regarding safety and security. The safety of rail employees and rail contractors is reliant on the condition of rail equipment and safe operating practices. The safety of the public can be affected by train accidents and incidents due to derailments, especially if hazardous materials are involved, at highway-rail at-grade crossings, and injuries which may occur while traveling by rail or on railroad property. Rail security has seen increased attention due to the potential for disruption of the transportation system or having large

74 https://ftp.txdot.gov/pub/txdot-info/ptn/sso-program-standard-2023.pdf.

75 https://rail.tti.tamu.edu/research-areas/

numbers of citizens at risk due to terrorism. The goal of Texas' rail safety programs is to address these issues as they arise through continued coordination with the state's rail operators, safety- related infrastructure improvements, and monitoring the rail network through safety inspections to identify existing and potential problems. TxDOT also coordinates with other federal and state agencies regarding transportation security and emergency response.

Rail Accident Statistics Texas

The following is a statistical review of rail safety in Texas over the past decade. It addresses the rail accident and incident trends and provides details as to the type of rail accidents, those affected, and causes. Table 2-46 shows statistics for the total number of rail accidents and incidents in Texas over the past 10 calendar years. These totals include Train Accidents, Highway-Rail Incidents, and Other Incidents. These categories will be defined and discussed in detail below.

Table 2-46: Total Accidents and Incidents in Texas (2014–2023)

Rail Injury Type	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Incidents	886	808	774	782	874	854	678	750	855	811
Deaths	64	56	66	54	48	77	45	87	95	96
Injuries	498	450	399	406	484	468	342	340	436	391

Source: FRA Office of Safety Analysis

The first half of the decade saw an average of 824.8 incidents, 57.6 deaths, and 447.4 incidents, while the most recent 5-year period saw averages of 788.4 incidents, 80 deaths, and 395 injuries. The trend in total rail incidents and injuries within the most recent 5-year period has decreased, while deaths have significantly gone up. It should be noted that in the year 2020, the Governor of Texas asked Texans to stay at home, except for those providing essential services. This order among other responses by the state and federal government to the COVID-19 pandemic, likely contributed to a significant decrease in incidents in 2020.

The following sections discuss the various types of Texas rail accidents and incidents in more detail.

Train Accidents in Texas

Train accidents include train derailments, collisions, and other events involving on-track rail equipment that result in fatalities, injuries, or monetary damage above a threshold set by FRA.[76] Train accident statistics in Texas over the past decade are provided in Table 2-47.

76 For 2024, the monetary threshold is $12,000. The threshold is adjusted yearly to ensure the threshold accurate reflects cost increases that have occurred within the railroad industry: https://railroads.dot.gov/safety-data/forms-guides-publications/guides/monetary-threshold-notice.

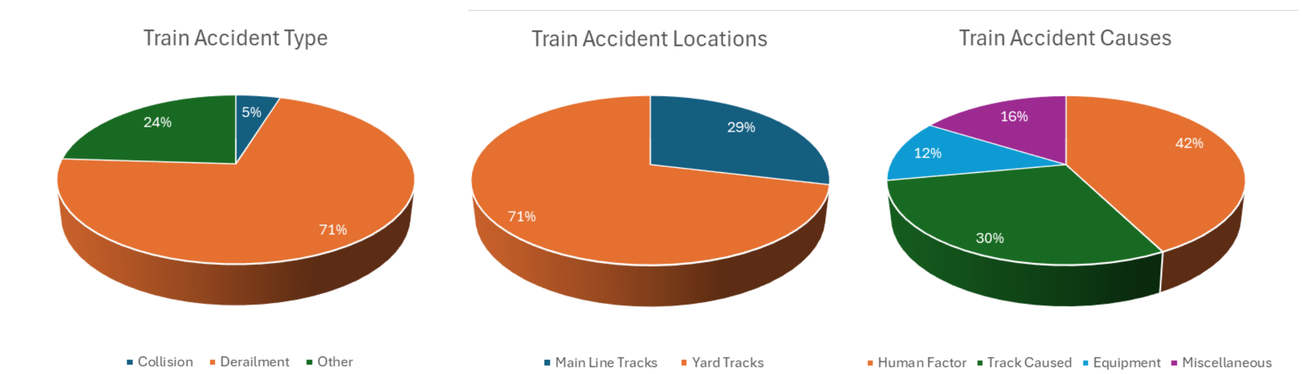
Table 2-47: Total Accidents and Incidents in Texas (2014–2023)

Train Accidents	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Incidents	194	247	203	202	260	233	194	183	230	203
Deaths	0	0	4	1	0	0	0	0	1	0
Injuries	9	16	2	10	8	2	2	11	4	7

Source: FRA Office of Safety Analysis

Figure 2-56 provides more detailed information regarding the type, location, and causes of the train accidents over the past decade.

Figure 2-56: Train Accident Type/Locations/Causes in Texas (2014–2023)



In the above illustration, rail derailments are shown to have been the dominant type of rail accidents in the state over of the past 10 years. Also, most rail accidents occurred on yard tracks as opposed to main line tracks. Lastly, track defects and human error were the leading causes of train accidents over the past decade, while equipment defects and miscellaneous causes comprised lesser shares of rail accidents in the state.

Other Rail Incidents

Other rail incidents include events other than train accidents or crossing incidents that caused a death or injury to any person. Most fatalities in this category are due to rail trespassers. Other events which generally lead to injuries in this category include such railroad-related activities as getting on or off equipment, doing maintenance work, throwing switches, setting handbrakes on railcars, falling, and so on. Rail passenger-related casualties can include boarding or alighting from standing trains or platforms. Statistics for this category of rail incidents are shown in Table 2-48.

Table 2-48: Total Accidents and Incidents in Texas (2014–2023)

Other Rail Incidents	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Incidents	403	337	339	347	366	369	292	319	384	357
Deaths	45	37	39	39	35	46	34	70	63	80
Injuries	378	334	314	319	357	341	271	261	350	306

Source: FRA Office of Safety Analysis

When averaged over the past five years reported incidents and injuries have decreased when compared than the first half of the decade, although deaths have risen; especially in past three years.

Highway-Rail At-Grade Crossing Safety in Texas

Crossing Protection in Texas

According to FRA's inventory of at-grade crossings, there are a total of 9,191 public at-grade highway-rail crossings in Texas (out of 14,022 public and private crossings total in the state). In addition, there are also 2,070 crossings that are grade separated (with the railroad being located over or underneath the opposing roadway). Public at-grade crossings in the state have various levels of grade crossing warning devices. Table 2-49 shows the type of warning equipment and the number of crossings equipped with each.

Table 2-49: Type of Warning Devices at Texas Public At-Grade Crossings

Warning Device Type	Number of Crossings
Gates with Cantilever-Mounted Flashing Light Signals	704
Cantilever-Mounted Flashing Light Signals	295
Gates with Mast-Mounted Flashing Light Signals	5,095
Mast-Mounted Flashing Light Signals	102
Stop Signs	371
Crossbuck	2,443
None	181
Total Public At-Grade	**9,191**

Source: FRA Office of Safety Analysis

Strategies to improve highway-rail grade crossing safety have included modifications by TxDOT to existing crossings and the implementation of additional safety measures by state and municipal authorities. Some of these strategies include:

- Crossing Surfaces: TxDOT's safety enhancement program includes funding for replanking the crossing area over ties to eliminate humped crossing surfaces and improving crossing approaches to provide a smooth flow of vehicles over the track.
- Highway Median Barriers: To prevent drivers from attempting to drive around warning gates TxDOT may consider the construction of highway median barriers at grade crossings, which generally requires highway widening as a proposed method of addressing this problem.
- Grade Crossing Consolidation: Under TxDOT's safety enhancement program, traffic patterns are reviewed to determine which grade crossings can be closed while minimizing inconvenience to local communities. Crossing consolidation and closure may encounter resistance from local communities due to the inconvenience caused by traffic rerouting.

- Grade Crossing Signal Upgrades: TxDOT upgrades grade crossing signalization as part of the safety enhancement program. This includes the installation of flashing lights or gates at crossings equipped solely with crossbucks, as well as the installation of gates at crossings only equipped with flashing lights.
- Installation of Reflector Systems: Texas regulations authorize the upgrade of existing passive warning systems to high intensity reflectorized systems of crossbucks and track signs. These systems are for use at all grade crossing locations that do not have train-activated warning devices and consist of reflectorized material placed on both sides of the crossbuck support pole.

At-Grade Crossing Incidents in Texas

Table 2-50 shows the number of accidents/incidents at public-highway grade crossings in Texas each year from 2014 through 2023 by severity.

Table 2-50: Accidents/Incidents Involving Railroad Equipment Reported in Texas (2014–2023)

Year	Number of Incidents Resulting in a Fatality	Number of Incidents Resulting in Injury (Non-Fatal)	Number of Incidents Resulting in Property Damage Only	Total
2014	18	65	154	237
2015	15	59	110	187
2016	18	48	121	187
2017	12	52	132	196
2018	12	66	125	203
2019	25	61	126	212
2020	8	43	97	148
2021	11	38	149	198
2022	24	39	139	202
2023	12	50	142	204

Source: FRA Office of Safety Analysis

Texas Highway-Rail Grade Crossing Safety Action Plan

A collision between a motor vehicle and a train is generally considered 20 times more likely to result in a fatality than other highway collisions.[77] Grade crossing safety is therefore one of the primary missions of TxDOT, and the agency continually works to reduce the number of occurrences and severity of crashes at highway-railroad grade crossings in the state. Improvements in grade crossing safety for motorists, pedestrians, railroad employees, and others is a key initiative for TxDOT, as well as railroads and other highway jurisdictions that operate within the state. In 2011, and at the request of the FRA, TxDOT developed a *Texas Highway-Rail Grade Crossing Safety Action Plan*, to 1) identify specific solutions for improving safety at crossings, including highway-rail grade crossings or grade separations; 2) focus on crossings that have experienced multiple accidents or are high risk for such accidents; and

77 Note that some federal and state agencies and past research have referred to accidents between trains and motor vehicles at highway-rail grade crossings as collisions or crashes. Both terms are therefore used interchangeably throughout this report, based on varying usage of terminology by these parties.

3) cover a 5-year time period.[78] Specifically, the Texas Highway-Rail Grade Crossing Safety Action Plan was designed to improve grade crossing safety within the state of Texas.

In 2021, the FRA published a final rule responding to the Fixing America's Surface Transportation Act (FAST Act) mandate that required states to develop and implement (or update, if applicable) action plans. As state of Texas previously prepared the *Texas Highway-Rail Grade Crossing Safety Action Plan* in 2011, the FRA required Texas to submit an updated action plan. The updated action plan included a report to the FRA describing what had been done to implement the previous action plan and how Texas will continue to reduce crossing safety risks.

Hazardous Materials Incidents in Texas

Hazardous Materials Safety Programs

The FRA and the Pipeline and Hazardous Materials Safety Administration (PHMSA) regulate the transport of hazardous materials (colloquially known as "hazmat"). The FRA Office of Safety Assurance and Compliance is granted authority by the U.S. Secretary of Transportation to administer a safety regulatory program that focuses on the transport of hazardous materials.

This program is administered through the FRA's Hazardous Materials Division and includes programs such as the Hazardous Materials Incident Reduction Program and the Spent Nuclear Fuel and High-Level Nuclear Waste Program. Congress also enacted the Implementing Recommendations of the 9/11 Commission Act of 2007, which required USDOT to adopt rules regarding routing of hazmat shipments through urban areas. The FRA and the Pipeline and Hazardous Materials Safety Administration adopted these rules in November 2008. Rules establish guidelines for railroads to use in studying hazmat shipping patterns, assessing alternate routes that minimize risk, and establishing procedures for reviewing routing decisions. These routing decisions are shared with state and local governments through intelligence fusion centers at the state level that work with the U.S. Department of Homeland Security.

At the state level, TxDOT's Rail Safety Program is tasked with collecting information on the transport of hazardous materials by rail in the state and uses this information to optimize the allocation of inspection resources. As with railroad operational safety issues (e.g. track, signal and train control, motive power and equipment, and operating practices), state and FRA safety inspectors monitor regulatory compliance with respect to transport of hazardous materials by conducting on-site investigations.

Hazardous Materials Safety Programs are generally composed of four main components:

- Inspection of railroad and shipping facilities and inspection of employee training records, security procedures and quality assurance programs to ensure safety standards are met;
- Technical assistance, education, and outreach activities to shippers/consignees, rail carriers, emergency responders, and the general public are carried out the FRA, PHMSA, railroads, Texas Department of Public Safety, the Texas Division of Emergency Management (a division of the Texas Department of Public Safety),

78 https://ftp.dot.state.tx.us/pub/txdot-info/rail/crossings/action_plan.pdf.

TxDOT, and TRANSCAER (a training and outreach organization supported by the railroad and chemical industries);
- Inspection and transport of nuclear materials (the TxDOT/Texas Department of State Health Services permits certain nuclear materials shipped by rail); and,
- Planning, preparation, and recovery plans, exercises, and training in the event of an incident, Hazardous materials are just one hazard encompassed in "all hazards" planning.

Outside of public emergency response to a hazardous materials rail incident, the large Class I railroads have additional resources and personnel that can be rapidly dispatched to the scene of an incident to advise and supplement the local response.

Rail Accidents Involving Hazardous Materials in Texas

Table 2-51 shows the history of accidents involving rail cars carrying hazardous materials in Texas over the past decade.

Table 2-51: Rail Accidents Involving Hazardous Materials in Texas (2014–2023)

Rail Incidents	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Cars Carrying Hazmat	726	921	518	796	1,179	1,114	854	1,358	958	1,203
Hazmat Cars Damaged or Derailed	97	90	70	100	139	128	110	70	116	86
Cars Releasing Hazmat	1	1	1	5	2	5	3	2	30	0

Source: FRA Office of Safety Analysis

Rail Security

In response to the increased focus on the security of the transportation system, new federal and state agencies have been established to oversee and help ensure the security of transportation modes. The following addresses specific rail security issues and Texas' involvement in rail security procedures.

Rail security is primarily a federal matter, led by the U.S. Department of Homeland Security through USDOT's Transportation Security Administration (TSA) in cooperation with FRA. While the FRA and TSA have regulatory authority over railroad security implementation plans, day-to-day actions to keep the railroad industry safe are the responsibility of Railroad Police Officers.

The primary agencies responsible for security related to transportation modes in Texas are the U.S. Department of Homeland Security, Texas Department of Public Safety, the Texas Division of Emergency management (a division of the Texas Department of Public Safety), Texas Fusion Center, State Emergency Response Commission/Emergency Management Council of Texas (SERC), and county emergency management coordinators. These agencies, in coordination with federal and state transportation agencies, have addressed transportation security largely through identifying critical infrastructures assets, developing protection strategies for these assets, and developing emergency management plans.

Final federal rules for rail security, published in November 2008, established requirements for protecting security sensitive information, identifying rail security coordinators at railroads and other hazardous materials shippers and receivers, reporting security incidents, and authorizing inspections of rail network facilities by USDOT's TSA personnel. These rail security coordinators are required to coordinate security practices with appropriate law enforcement and emergency response agencies. TSA is also responsible for coordinating security on passenger rail, commuter rail, and rail transit systems.

The primary state agency responsible for security related to transportation modes in Texas is the Texas Department of Public Safety. The Department of Public Safety addresses rail system security through the following means:

- Training and deploying manpower and assets for high-risk areas.
- Developing and testing new security technologies.
- Performing security assessments of systems across the country.
- Providing funding to state and local partners.

The Texas Department of Public Safety's Division of Emergency Management serves as the state agency responsible for oversight and coordination of emergency response planning among local emergency planning commissions generally established at county level in Texas.

The Texas Fusion Center is part of the Department of Emergency Management at the Texas Department of Public Safety. The Fusion Center is a state-of-the-art facility housing federal, state, regional and local law enforcement agencies at Texas Department of Public Safety Headquarters. The Fusion Center's Watch Center is a "24/7" unit that works with federal, state, regional, and local law enforcement and serves as the state repository for homeland security information and incident reporting. It provides real-time intelligence support to law enforcement and public safety authorities and consolidates information and data from all jurisdictions and disciplines. TxDOT participates through interagency Homeland Security committees.

The Texas State Emergency Management Council, which is composed of 32 state agencies, the American Red Cross, and the Salvation Army, is established by state law to advise and assist the Governor in all matters relating to disaster mitigation, emergency preparedness, disaster response, and recovery- including issues related to railroad security. During major emergencies, Council representatives convene at the State Operations Center (located at the Texas Department of Public Safety Headquarters in Austin, Texas) to provide advice on and assistance with response operations and coordinate with the activation and deployment of state resources to respond to the emergency. Generally, state resources are deployed to assist local governments that have requested assistance because their own resources are inadequate to deal with an emergency. The Council organized by emergency support function – groupings of agencies that have legal responsibility, expertise, or resources needed for a specific emergency response function.

State and local governments work with railroads to prepare for possible hazmat releases through the federal Emergency Planning and Community Right to Know Act of 1986, administered through the EPA. The entities are backed up by county emergency management coordinators and agencies to facilitate the local government and volunteer response to and recovery from a disaster, whether man-made or natural.

Larger Class I railroads in Texas also have additional resources and personnel that respond to a security threat or incident, including railroad police officers.

In addition, the AAR, working with the U.S. Department of Homeland Security and other federal agencies has organized the Rail Security Task Force. This task force developed a comprehensive risk analysis and security plan for the rail system that includes:

- A database of critical railroad assets.
- Assessments of railroad vulnerabilities.
- Analysis of the terrorism threat.
- Calculation of risks and identification of countermeasures.

The railroad sector maintains communications with the U.S. Department of Defense, U.S. Department of Homeland Security, USDOT, the Federal Bureau of Investigation (FBI), and state and local law enforcement agencies on all aspects of rail security.

Economic Impact of Rail

The economic impact of rail transportation in Texas in 2022 were estimated using multipliers from IMPLAN with input data and assumptions from freight data, value of commodity shipments, and passenger rail operations. Freight data was extracted through STB Waybill Sample data for shipments focusing on traffic originating in Texas. This was done to avoid the potential over statement of the impact rail transportation services and rail served industries in Texas. Meanwhile, the value of commodity shipments, presented in 2022 dollars per ton, were estimated based on freight data for the rail shipments originating in Texas from the Federal Highway Administration's (FHWA) Freight Analysis Framework (FAF).

Impact of the rail industry in Texas considered in this analysis stems from organizations providing freight and passenger transportation services, as well as industries using rail freight services to trade goods (i.e., shippers of goods or commodities).

Impacts were estimated and presented by activity (service provision and rail users), type (direct, indirect, induced, and total), and measure (employment, income, output, value added, and taxes) for 2022 to provide an extensive review of how rail operations in Texas impacted the State's economy.

Based on the results highlighted in Table 2-52:

- **Output**: In terms of total revenue, the rail-related industries generated an estimated $220.2 billion in output, of which, $219.9 billion was contributed by freight rail operations and services.
- **Employment**: Rail transportation supported over 262,800 jobs directly through the provision of rail transportation services (both freight and passenger) and facilitation of operation of rail transportation users. If multiplier effects (indirect and induced) are included as well, rail transportation industry supported over 469,200 jobs.
- **Labor Income**: In total, the rail transportation industries supported $54.2 billion in earnings for more than 469,200 employees. These earnings include employee compensation and proprietary incomes.

- **Value Added**: The combined value-added impact of rail-related activity amounted to nearly $101.5 billion accounting for approximately 4.2% of Texas' Gross Domestic Product (GDP) in 2022[79].
- **Tax**: Rail-related industries generated over $7.1 billion in government tax revenues, with majority these revenues attributable to freight rail operations and freight rail users.

Table 2-52: Rail Economic Impacts in Texas

Impact Metric	Transportation Service Provision		Transportation Service Use	Total Transportation Service		Total Impact
	Freight	Passenger		Freight	Passenger	
Output ($M)						
Direct	$8,151.6	$121.9	$108,495.0	$116,646.6	$121.9	$116,768.5
Total	$16,770.2	$250.7	$203,163.3	$219,933.5	$250.7	$220,184.2
Employment (Jobs)						
Direct	13,206	207	249,410	262,615	207	262,822
Total	32,917	502	435,823	468,739	502	469,241
Labor Income ($M)						
Direct	$1,912.9	$28.6	$21,920.0	$23,832.9	$28.6	$23,861.5
Total	$4,508.0	$67.4	$49,653.1	$54,161.1	$67.4	$54,228.5
Value Added ($M)						
Direct	$4,049.8	$60.5	$43,437.3	$47,487.1	$60.5	$47,547.7
Total	$8,704.8	$130.1	$92,712.7	$101,417.5	$130.1	$101,547.7
Taxes ($M)						
Direct	$88.0	$1.3	$2,882.9	$2,971.0	$1.3	$2,972.3
Total	$548.7	$8.2	$6,589.3	$7,137.9	$8.2	$7,146.1

Note: All monetary values presented in the table are in 2022 dollars.

A full description of the methodology, data sources, and detailed economic impact analysis results can be found in Appendix C.

Trends and Forecasts

The purpose of this section is to describe trends that will influence the future rail needs for the state of Texas. Factors that affect both passenger and freight rail include demographic and economic growth, and changes to freight and passenger transportation. The following discussions provide a base for determining future rail service needs in Texas.

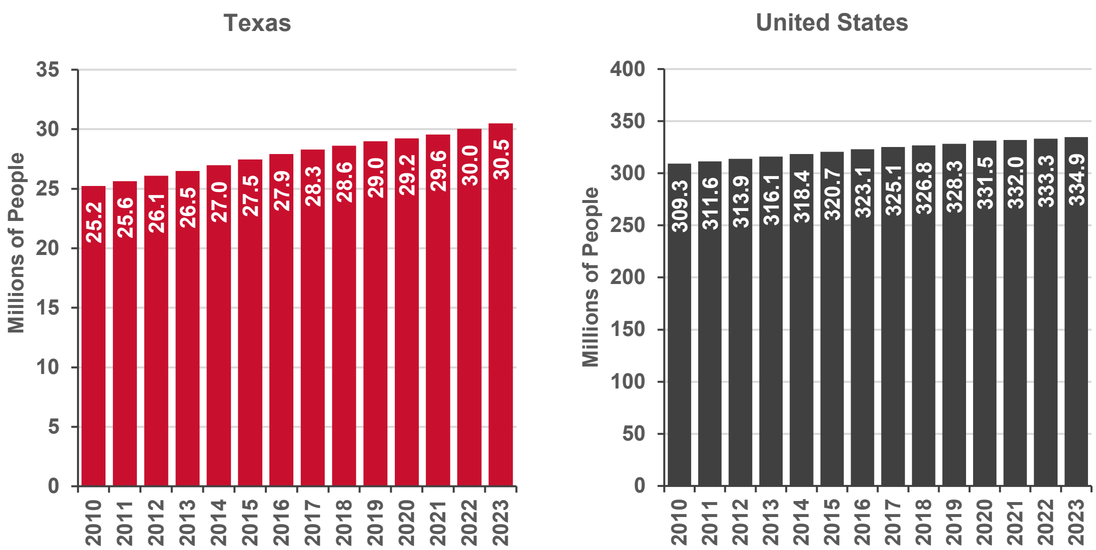
79 Based on a GDP of $2,402,137.2 million for Texas in 2022. U.S. Bureau of Economic Analysis, Gross Domestic Product: All Industry Total in Texas [TXNGSP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TXNGSP, September 5, 2024.

Demographics and Economic Growth Factors

Population

Figure 2-57 presents the population trends of Texas compared to the national trends over time. Based on the 2023 population estimates, Texas (30.5 million) has the second largest population next to California (39.0 million). From 2010 to 2023, the population of Texas increased by 20.8%, which translates to an average annual population growth rate of 1.5%. Comparatively, the overall national population only saw an 8.3% increase in the same period, translating to an average annual population growth rate of 0.6%.[80]

Figure 2-57: Population Trends

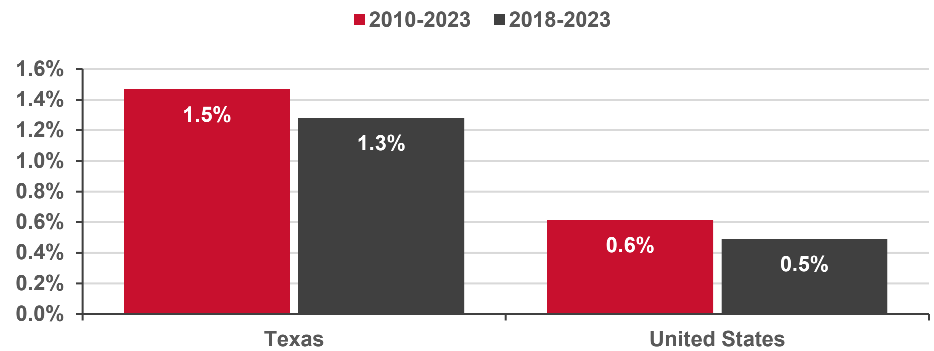


Source: U.S. Census Bureau

As mentioned, the average annual population growth rate in Texas is substantially greater than that of the national average annual population growth rate between 2010 and 2023. This relationship remains true even when looking at the last few years of data, specifically from 2018 to 2023. From 2012 to 2017, Texas experienced an annual average population growth rate of 1.3%, while at the national level, the average annual population growth rate was only 0.5%. These results can be seen in Figure 2-58.

80 Based on data from the U.S. Census Bureau.

Figure 2-58: Average Annual Population Growth Rate

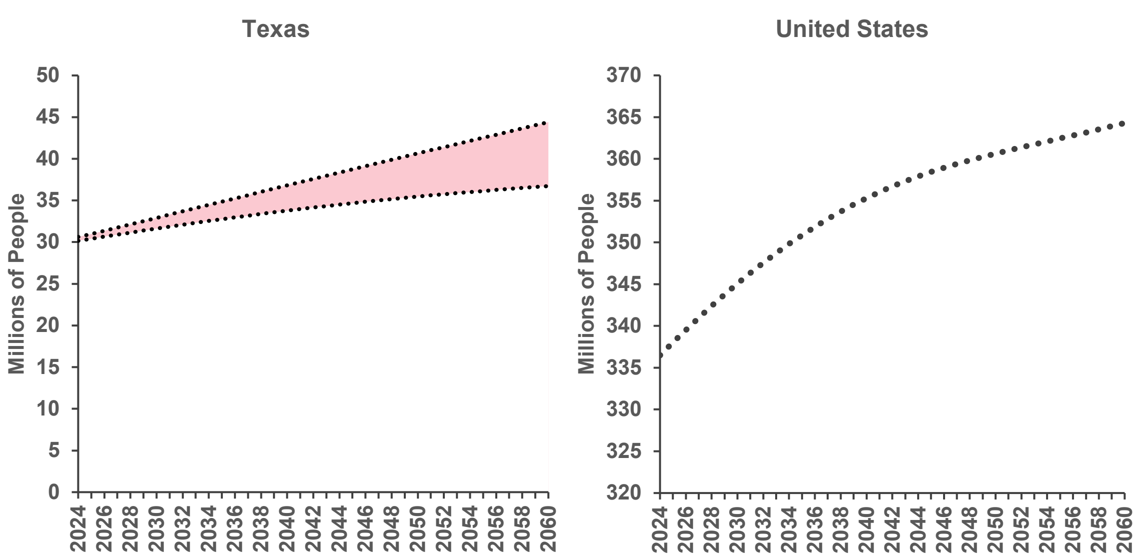


Source: U.S. Census Bureau

National population projections and the population projections for Texas were obtained from the U.S. Census Bureau and the Texas Demographics Center, respectively. The Census Bureau presents U.S. population forecasts through 2100, while the projections from the Texas Demographics Center presents annual population forecasts from 2020 to 2060 under two different growth scenarios. The growth scenarios vary based on different migration level assumptions using the migration data from 2010 to 2020. In particular, the scenarios considered reflect Half Migration and Full Migration based on the historical migration rates from 2010 to 2020.

From 2024 to 2060, the national population is forecasted to increase by 8.3%, translating into an average annual population growth rate of 0.2%. In the same period, the population in Texas is projected to grow between 21.8% to 45.0%, depending on the level of migration. This is expected to translate into an average annual population growth rate between 0.5% and 1.0%. Figure 2-59 presents the future population estimates for both Texas and the U.S.

Figure 2-59: Texas and U.S. Future Population Projections



Source: Texas Demographics Center's 2022 Population Projections and U.S. Census Bureau's 2023 National Population Projections Tables.

The U.S. Census Bureau's 2022 American Community Survey, the median age for Texas was 35.6 years, which is much lower than the national median age of 39.0 years. Additionally, the estimates also indicated that individuals aged 25 to 54 were the largest segment of Texas' population, representing over 40.8% of the Texas population or almost 12,300,000 persons. The same age group were also the largest segment of the national population with a similar share of 38.9% of the overall population or almost 129,800,000 persons.

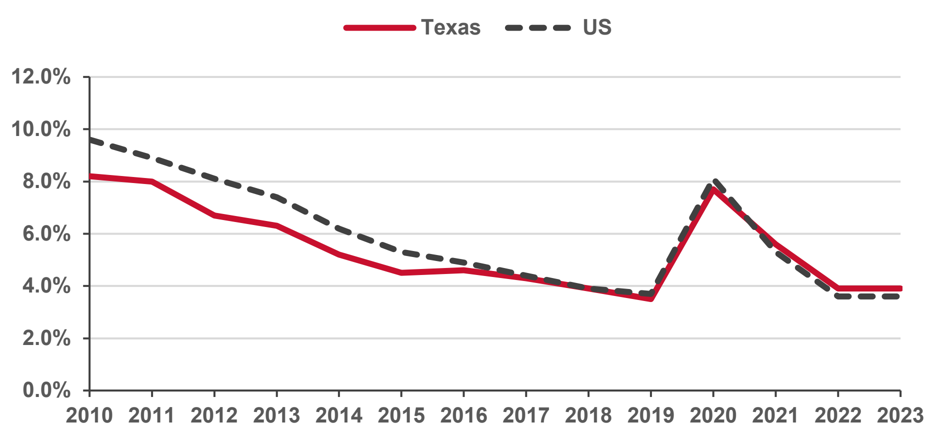
Additionally, the 2022 American Community Survey indicated that 86.1% of those aged 25 and older in Texas have graduated from high school, which is relatively less than the national average of 89.6%. This relationship persists when comparing those who have received a bachelor's degree or higher for the same age group. Specifically, in Texas 33.9 % of those aged 25 and older received a bachelor's degree or higher, compared to the national average of 35.7%.

Employment

Based on data from the Bureau of Labor Statistics, total employment in Texas in 2023 amounted to 14.5 million. Additionally, the data indicated that in 2023, the unemployment rate in Texas was 3.9%, similar to the national unemployment rate of 3.6%.

As seen in Figure 2-60, the unemployment rate in Texas generally follows that of the national unemployment rate. Between 2010 and 2023 the unemployment rate generally below the national average, but around 2020 to 2021, that relationship had switched. Historically, the average annual unemployment rate in Texas was as high as 8.2 % around 2010 decreasing over time but with a with a spike in during COVID-19 pandemic. However, overall, the general trend and trajectory of the unemployment rate in Texas has closely mirrored that of the national unemployment rate.

Figure 2-60: Unemployment Rate



Source: Bureau of Labor Statistics

In 2022, Texas had a GDP of $2.4 trillion based on the data from the Bureau of Economic Analysis. From 2010 to 2022, Texas' GDP grew by 91.3%, reflecting an average annual growth rate of 5.6%. In the last 5 years, total GDP growth amounted to 44.1% translating to an average annual growth rate of 7.6%.

In 2022, the top five industries generated reflect 60.1% of the Texas' GDP:

- Finance, Insurance, and Real Estate: $430.8 billion (17.9%).
- Professional and Business Services: $286.5 billion (11.9%).
- Manufacturing: $269.0 billion (11.2%).
- Mining and Oil and Gas Extraction: $235.6 billion (9.8%).
- Government: $222.4 billion (9.3%).

Figure 2-61 presents the employment shares by industry in Texas for 2010 and 2022. From the graph, it is evident that the top three industries in 2010 also remain the top three industries in 2022 with slight change in order. These industries include Professional, Management, and Admin Services (13.7% of employment in 2010 and 15.7% in 2022), Education and Healthcare (11.2% and 10.9%, respectively), and Government (14.2% and 10.8%, respectively). Combined, these three industries reflect 39.1% of the total share of employment in 2010, but slightly decreased to 37.4% of the total share of employment in 2022.

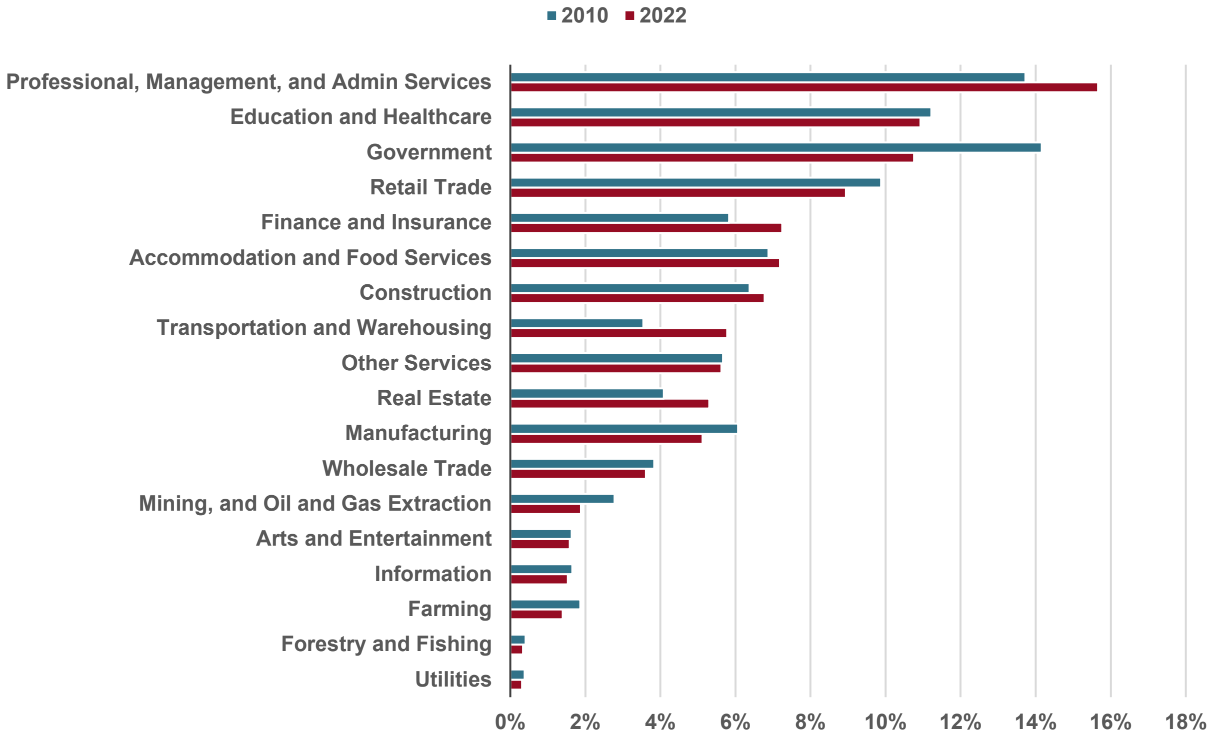
Outside of the three industries mentioned, the industries that experienced a reduction in employment shares between 2010 and 2022 include the following:

- Retail Trade: from 9.9 % to 8.9 %.
- Manufacturing: from 6.1% to 5.1%.
- Mining, and Oil and Gas Extraction: from 2.8% to 1.9%.

Meanwhile, the industries for which employment shares increased include the following:

- Transportation and Warehousing: from 3.5% to 5.8%.
- Finance and Insurance: from 5.8% to 7.2%.
- Real Estate: from 4.1% to 5.3%.

Figure 2-61: Employment Share by Industry in Texas



Source: Data from the Bureau of Economic Analysis. CAEMP25N Total Full-Time and Part-Time Employment by NAICS Industry.

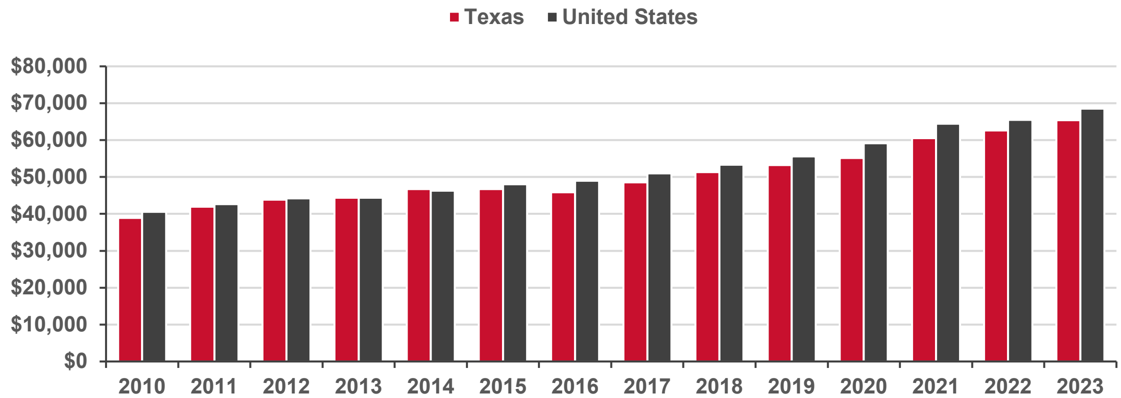
Personal Income

Figure 2-62 presents the trends in personal income per capita in Texas and nationwide from 2010 to 2023.[81] This figure demonstrates that generally the national average personal income per capita and the Texas state average followed a similar trend. Texas' personal income per capita has been generally lower than the national average, except for 2014. The gap between the two was rather small but widened after 2014 after several years of apparent convergence, where Texas' per capita personal income was almost $500 greater than the national per capital personal income. However, since 2014, the gap between the national per capita personal income and Texas' per capita personal income, where in 2020 the national per capita personal income was over $4,000 greater than Texas' per capita personal income. Since 2020, the gap slightly reduced where in 2023 the national per capita personal income is $3,100 greater than Texas' per capita personal income.

Overall, from 2010 to 2023, the average annual growth rate for the per capita personal income at both the state and national level amounted to 4.1%.

81 Income levels presented are in nominal terms or are not adjusted for inflation.

Figure 2-62: Personal Income per Capita



Source: Data from the Bureau of Economic Analysis. SASUMMARY State Annual Summary Statistics: Personal Income, GDP, Consumer Spending, Price Indexes, and Employment - Per Capita Personal Income.

Industrial Outlook by Sector

Based on employment forecast data from the Texas Workforce Commission, total employment in Texas is forecasted to increase by 18.3% over the years 2020-2030, or by 1.7% annually on average. Leisure and Hospitality is forecasted to be the fastest growing sector with an average annual rate of growth of 3.0% followed by Natural Resources and Mining and Professional and Business Services, expected to grow at an average annual rate of 2.7% and 2.2%, respectively. On the other hand, Information, Public Administration, and self-employment are all forecasted to grow at an average annual rate of 1% or less (specifically at 1%, 0.7%, and 0.5%, respectively).[82]

Freight Demand and Growth

Introduction and Approach

Recent freight rail transportation data for Texas were derived from the 2022 STB Carload Waybill Sample. Rail movements are categorized by direction (i.e., inbound, outbound, intrastate, and through) and commodities, which are measured in carloads and tonnage or containers. The source directional categories are defined as followed:

- **Inbound**: Freight originating outside of the state with a destination in Texas.
- **Outbound**: Freight originating within Texas and is destinated for outside the state.
- **Intrastate**: Freight originating within the state and terminating at another station in the state.
- **Through**: Freight originating and destined outside of the state but traveling along Texas' rail network to reach its destination.

The STB Waybill data classifies commodities using a system of Standard Transportation Commodity Codes (STCC). The commodity detail is captured by a 7-digit code. The first two digits represent a broad product category or class with some common characteristics. This 2-digit aggregation is used in the analysis presented here. Table 2-53 provides a list of the 2-digit STCC product categories based on this aggregation. The commodity analysis presented

82 Based on data from the Texas Workforce Commissions, Labor Market Information – Industry Projections: Long-Term 2020-2030. Data obtained from: https://texaslmi.com/LMIbyCategory/Projections.

here typically focuses on up to five top commodities transported. The category of "other" commodities represents the remaining commodities.

The following sections summarize rail movements by direction and the top commodities involved in each. Supplemental graphics are shown for ease of identifying key commodity movements. Appendix D provides more detailed commodity movement statistics.

Table 2-53: Standard Transportation Commodity Codes (STCC)

Code	Commodity Group Name	Code	Commodity Group Name
1	Farm Products	31	Leather Products
9	Fresh Fish	32	Stone, Clay & Glass Products
10	Metallic Ores	33	Primary Metal Products
11	Coal	34	Fabricated Metal Products
13	Crude Oil	35	Machinery
14	Non-Metallic Minerals	36	Electrical Equipment
19	Ordnance	37	Transportation Equipment
20	Food Products	38	Optical Instruments
21	Tobacco Products	39	Misc. Manuf. Products
22	Textiles	40	Waste & Scrap Materials
23	Apparel	41	Misc. Freight Shipments
24	Lumber & Wood Products	42	Empty Containers
25	Furniture & Fixtures	43	Mail, Express and Other Contract Traffic
26	Pulp & Paper Products	44	Freight Forwarder
27	Printed Matter	45	Shipper Association or Similar Traffic
28	Chemicals	46	Misc. Mixed Shipments
29	Petroleum & Coal Products	47	Small Packaged Freight
30	Rubber & Plastics	48	Hazardous Waste

Current Freight Rail

As shown in Table 2-54 and Table 2-55, approximately 409.6 million tons of freight and over 10.1 million carloads units were transported over the Texas rail network. Based on tonnage, inbound volumes represent the largest share of freight traffic with over 165.1 million tons of freight destined for Texas, accounting for over 40.3% of all directions by tonnage. This is followed by through traffic (26.8%), intrastate traffic (17.2%), and outbound traffic (15.6%). Meanwhile, based on carloads, through movements represents the largest share of carload traffic with almost 4.9 million carload units transported over the network, reflecting 48.0% of all carload traffic. This is followed by inbound traffic (25.7%), outbound traffic (18.1%) and intrastate traffic (8.2%).

Additionally, based on the tables below, majority of the volumes transported over the Texas rail network are non-container commodities, with 78.1 million tons of containerized goods compared to 331.4 million tons of non-containerized goods in 2022.

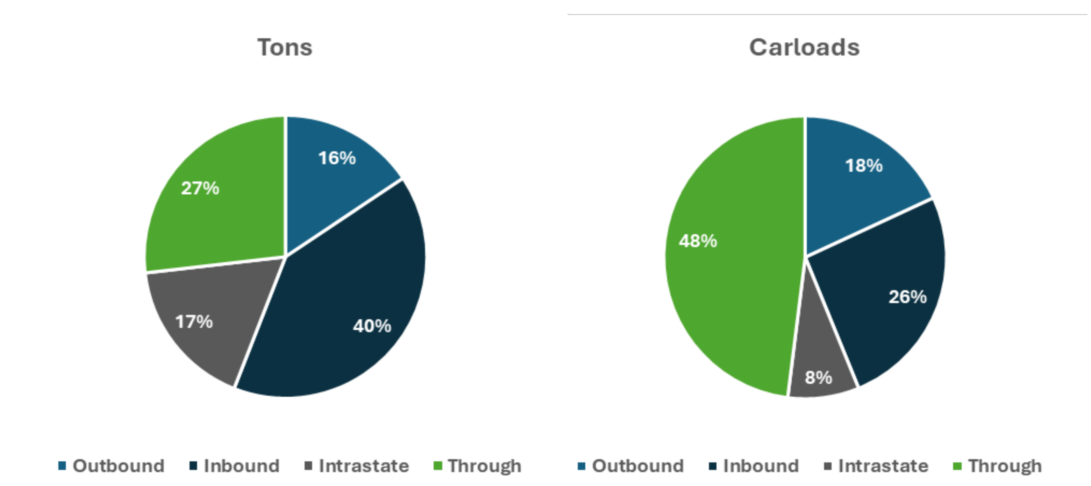
Table 2-54: Bulk/Breakbulk Rail Movements by Direction, 2022

Direction	Tons (Millions)		Carloads		Tons/Carload Utilization
	Amount	Percent	Amount	Percent	
Outbound	52.3	15.8%	744,432	19.6%	70.2
Inbound	151.8	45.8%	1,572,797	41.5%	96.5
Intrastate	70.5	21.3%	789,406	20.8%	89.4
Through	56.9	17.2%	687,391	18.1%	82.7
Total	331.4	100.0%	3,794,026	100.0%	87.4

Table 2-55: Container Rail Movements by Direction, 2022

Direction	Tons (Millions)		Carloads		Tons/Carload Utilization
	Amount	Percent	Amount	Percent	
Outbound	11.7	15.0%	1,088,705	17.2%	10.8
Inbound	13.3	17.0%	1,032,680	16.3%	12.9
Intrastate	0.1	0.1%	36,925	0.6%	2.2
Through	53.0	67.8%	4,176,040	65.9%	12.7
Total	78.1	100.0%	6,334,350	100.0%	12.3

Figure 2-63: Rail Movements Share by Direction, 2022



Major Commodity Movements

The top 5 commodities by tonnage and carload units include the following (Figure 2-64):

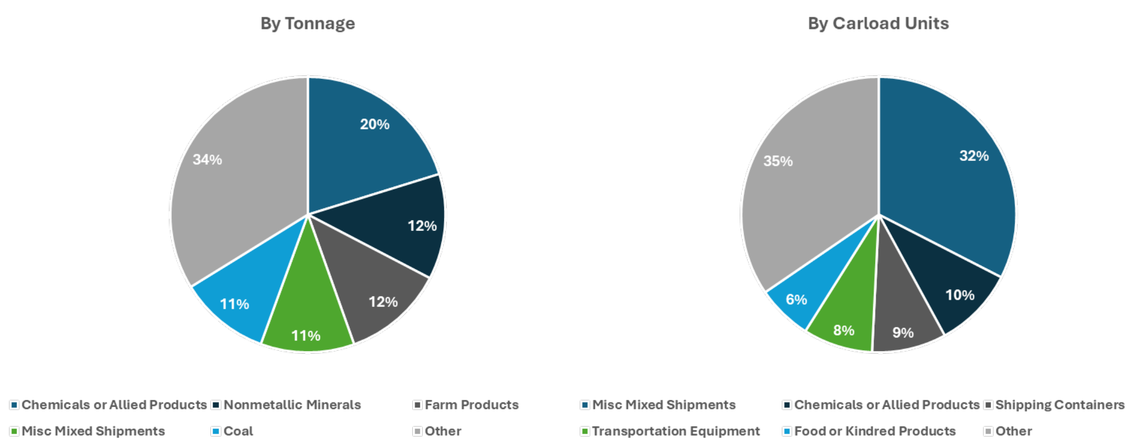
By Tonnage:

1. Chemicals or Allied Products (82.9 million tons, 20.2% of rail total)
2. Non-metallic Minerals (50.8 million tons, 12.4% of rail total)
3. Farm Products (48.8 million tons, 11.9% of rail total)
4. Miscellaneous Mixed Shipments (45.2 million tons, 11.0% of rail total)
5. Coal (43.6 million tons, 10.6% of rail total)

By Carload Units:

1. Miscellaneous Mixed Shipments (3.3 million carloads, 32.5% of rail total)
2. Chemicals or Allied Products (1.0 million carloads, 9.5% of rail total)
3. Shipping Containers (0.9 million carloads, 8.8% of rail total)
4. Transportation Equipment (0.8 million carloads, 8.2% of rail total)
5. Food or Kindred Products (0.7 million carloads, 6.5% of rail total)

Figure 2-64: Rail Movements Top Commodities by Tonnage and Carload, 2022



Rail – Outbound

Outbound movements in 2022 amounted to 64.0 million tons (15.6% of total) and 1.8 million carloads (18.1% of total). Appendix D provides detailed tables for Texas rail outbound movements. The shipments of top 5 commodities include (Figure 2-65):

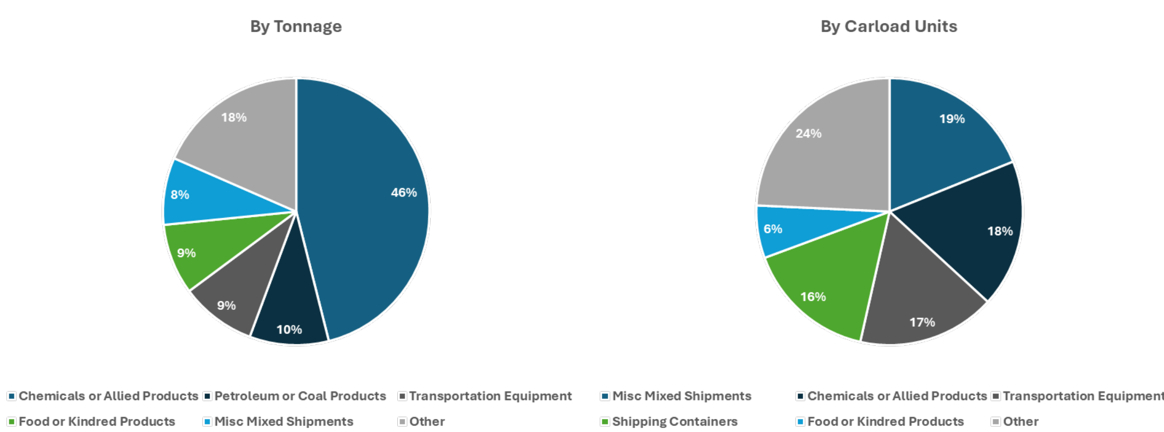
By Tonnage:

1. Chemicals or Allied Products (29.5 million tons, 46.1% of outbound rail total)
2. Petroleum or Coal products (6.1 million tons, 9.6% of outbound rail total)
3. Transportation Equipment (5.9 million tons, 9.2% of outbound rail total)
4. Food or Kindred Products (5.5 million tons, 8.6% of outbound rail total)
5. Miscellaneous Mixed Shipments (5.2 million tons, 8.1% of outbound rail total)

By Carload Units:

1. Miscellaneous Mixed Shipments (0.3 million carloads, 18.9% of outbound rail total)
2. Chemicals or Allied Products (0.3 million carloads, 17.9% of outbound rail total)
3. Transportation Equipment (0.3 million carloads, 16.7% outbound rail total)
4. Shipping Containers (0.3 million carloads, 15.8% of outbound rail total)
5. Food or Kindred Products (0.1 million carloads, 6.4% of outbound rail total)

Figure 2-65: Rail Outbound Top Commodities by Tonnage and Carload, 2022



Outbound Tonnage Origins

Five Texas counties accounted for over 55% of 2022 rail movements to out-of-state destinations. These counties included the following: Harris County (16.4 million tons, or 25.7% of outbound rail total), Webb County (5.2 million tons, 8.2% of outbound rail total), Maverick County (4.7 million tons, 7.4% of outbound rail total), Tarrant County (4.6 million tons, 7.2% of outbound rail total), and Brazoria County (4.5 million tons, 7.0% of outbound rail total). The top commodities shipped from these counties include Chemicals or Allied Products, Transportation Equipment, Food or Kindred Products, Miscellaneous Mixed Shipments, and Petroleum or Coal Products. Appendix D provides detailed tables of outbound shipments by commodity for top counties.

Outbound Tonnage Destinations

Three destination states accounted for over 60% of rail movements originating in Texas in 2022. These states included the following: Illinois (16.8 million tons, 26.3% of outbound rail total), California (11.1 million tons, 17.4% of outbound rail total), and Louisiana (10.7 million tons, 16.7% of outbound rail total). The top commodities shipped to these states include Chemicals or Allied Products, Miscellaneous Mixed Shipments, Transportation Equipment, Food or Kindred Products, and Petroleum or Coal Products.

Rail – Inbound

Inbound movements in 2022 amounted to 165.1 million tons (40.3% of total) and 2.6 million carloads (25.7% of total). The shipments of top 5 commodities are characterized below and in Figure 2-66.

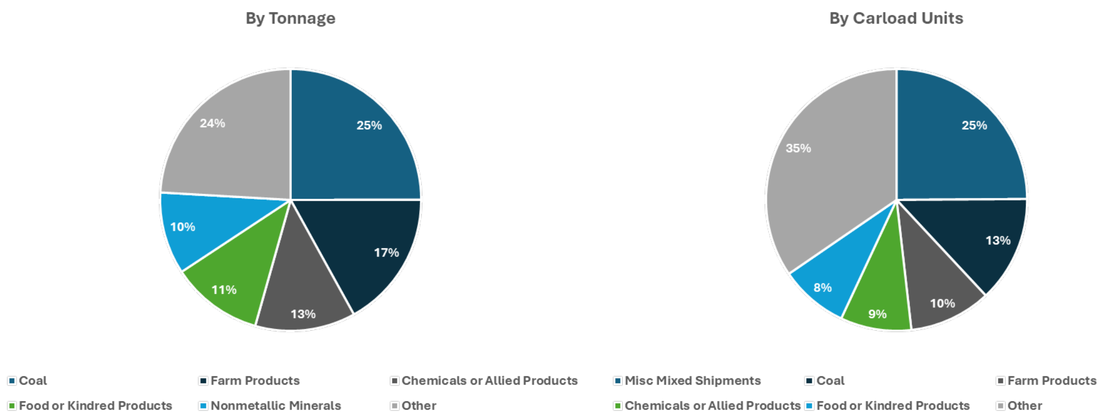
By Tonnage:

1. Coal (41.2 million tons, 25% of inbound rail total)
2. Farm Products (28.0 million tons, 17.0% of inbound rail total)
3. Chemicals or Allied Products (20.5 million tons, 12.4% of inbound rail total)
4. Food or Kindred Products (18.7 million tons, 11.4% of inbound rail total)
5. Non-Metallic Minerals (16.8 million tons, 10.2% of inbound rail total)

By Carload Units:

1. Miscellaneous Mix Shipments (0.6 thousand carloads, 24.9% of inbound rail total)
2. Coal (0.3 thousand carloads, 13.1% of inbound rail total)
3. Farm Products (0.3 thousand carloads, 10.2% of inbound rail total)
4. Chemical or Allied Products (0.2 thousand carloads, 8.8% of inbound rail total)
5. Food or Kindred Products (0.2 thousand carloads, 8.5% of inbound rail total)

Figure 2-66: Rail Inbound Top Commodities by Tonnage and Carload, 2022



Inbound Tonnage Origin

Four states accounted for over 50% of 2022 rail movements to Texas destinations. These states included the following: Wyoming (42.1 million tons, 25.5% of inbound rail total), Illinois (18.0 million tons, 10.9% of inbound rail total), Oklahoma (13.7 million tons, 8.3% of inbound rail total), and Iowa (11.9 million tons, 7.2% of inbound rail total). The top commodities shipped from these states include Coal, Farm Products, Non-Metallic Minerals, Food or Kindred Products, and Chemicals or Allied Products.

Inbound Tonnage Destination

The top five Texas destination counties accounted for over 36% of inbound rail movements in 2022. These counties included the following: Harris (19.3 million tons, 11.7% of inbound total), Tarrant (12.5 million tons, 7.6% of inbound total), Dallas (10.4 million tons, 6.3% of inbound total), Maverick (9.0 million tons, 5.4% of inbound total), and Fort Bend (8.7 million tons, 5.3% of inbound total). The top commodities shipped to these counties include Farm Products, Coal, Chemicals or Allied Products, Miscellaneous Mixed Shipments, and Non-Metallic Minerals.

Rail – Intrastate

2022 Texas intrastate movements accounted for 17.2%, or almost 70.6 million tons, and 8.2%, or over 826.3 thousand carloads, of total tonnage and carloads, respectively. The top 5 commodities by tonnage and carloads include the following (

Figure 2-67):

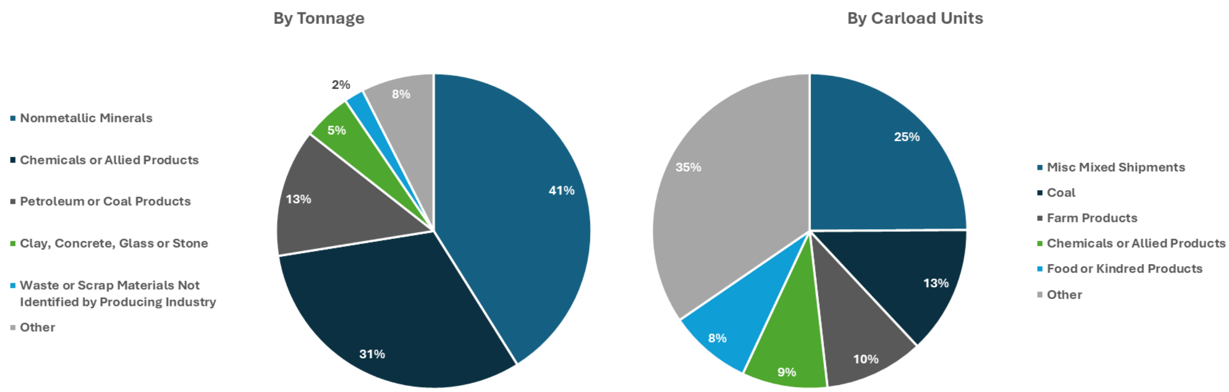
By Tonnage:

1. Non-Metallic Minerals (29.0 million tons, 41.1% of intrastate total)
2. Chemicals (22.2 million tons, 31.4% of intrastate total)
3. Petroleum or Coal Products (9.3 million tons, 13.1% of intrastate total)
4. Clay, Concrete, Glass or Stone (3.5 million tons, 4.9% of intrastate total)
5. Waste or Scrap Material Not Identified by Producing Industry (1.4 million tons, 2.0% of intrastate total)

By Carload Units:

1. Non-Metallic Minerals (266.7 thousand carloads, 32.3% of intrastate total)
2. Chemicals or Allied Products (234.6 thousand carloads, 28.4% of intrastate total)
3. Petroleum or Coal Products (101.1 thousand carloads, 12.2% of intrastate total)
4. Transportation Equipment (93.8 thousand carloads, 11.3% of intrastate total)
5. Clay, Concrete, Glass or Stone (34.1 thousand carloads, 4.1% of intrastate total)

Figure 2-67: Rail Intrastate Top Commodities by Tonnage and Carload, 2022



Rail – Through

Rail movements passing through Texas accounted for 26.8% (109.8 million tons) and 48% (4.9 million carloads) of total tonnage and carloads respectively. The top 5 commodities by tonnage and carload unit include the following (Figure 2-68):

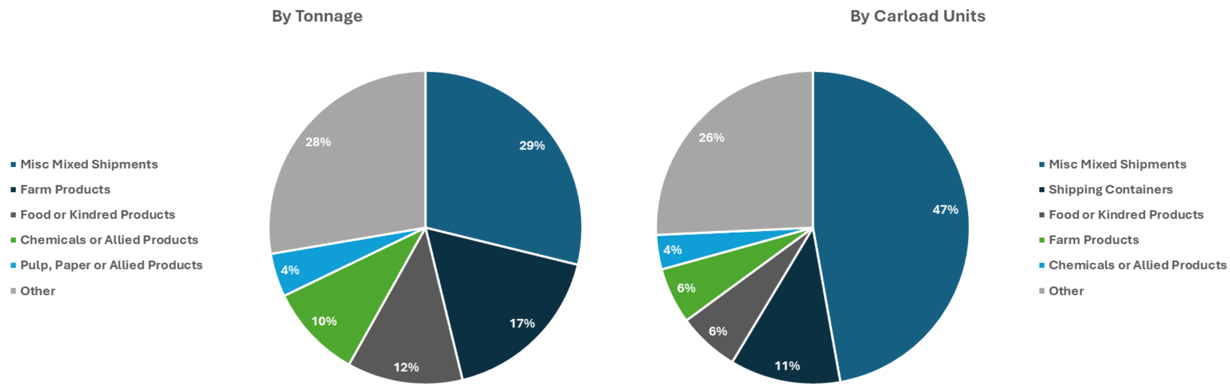
By Tonnage:

1. Miscellaneous Mixed Shipments (31.6 million tons, 28.8% of through total)
2. Farm Products (19.1 million tons, 17.4% of through total)
3. Food or Kindred Products (13.1 million tons, 11.9% of through total)
4. Chemical or Allied Products (10.7 million tons, 9.7% of through total)
5. Pulp, Paper or Allied Products (4.9 million tons, 4.5% of through total)

By Carload Units:

1. Miscellaneous Mixed Shipments (2.3 million carloads, 47.2% of through total)
2. Shipping Containers (0.6 million carloads, 11.4% of through total)
3. Food or Kindred Products (0.3 thousand carloads, 6.3% of through total)
4. Farm Products (0.3 thousand carloads, 5.8% of through total)
5. Chemical or Allied Products (0.2 thousand carloads, 3.5% of through total)

Figure 2-68: Rail Through Top Commodities by Tonnage and Carload, 2022



Rail Forecast Analysis

To assess potential future freight rail tonnage growth, forecasts were derived from the Freight Analysis Framework (FAF) database. FAF data provides a suitable means by which to assess future growth in tonnage, despite being less comprehensive than STB Waybill Sample data. Due to FAF data being presented in Standard Classification of Transported Goods (SCTG) commodity terms, as opposed to Standard Transportation Commodity Code (STCC) terms used by the STB, the two databases are not directly comparable in terms of commodity classifications. The two databases also differ somewhat in the annual estimates of shipments that they provide. Nevertheless, the database is suitable for inferring future forecasted commodity growth patterns. To make the estimates as comparable to the STB Waybill analysis as possible, 2022 was selected as the base year of forecasts.

Table 2-56 summarizes rail movements for 2022 and 2050 and the implied rates of growth. Detailed tables by commodity for all FAF directional movements (outbound, inbound, and intrastate) are available in Appendix D. As Table 2-56 shows, over the period 2022 to 2050 total rail shipments to, from, and across Texas are forecasted to increase by over 72.8%, or at an average annual rate of 2.0%.

The growth patterns differ by the direction of movements. Average annual growth for inbound and through movements are forecasted to have a marginally smaller increase of 1.4% and 1.1%, respectively (or a total increase of 49.2% and 35.8%, respectively). Meanwhile, outbound and intrastate movements are expected to increase drastically with an average annual growth rate of 3.0% and 3.1%, respectively (or a total increase of 128.1% and 135.5%, respectively). For outbound traffic and intrastate traffic, the growth can be partially explained with the projected increase for Chemicals or Allied Products.

Table 2-56: Freight Forecast by Direction, 2022 and 2050

Direction	2022		2050		CAGR	Total Growth
	Millions of Tons	Percent	Millions of Tons	Percent		
Outbound	64.0	15.6%	146.0	20.6%	3.0%	+128.1%
Inbound	165.1	40.3%	246.2	34.8%	1.4%	+49.2%
Intrastate	70.6	17.2%	166.3	23.5%	3.1%	+135.5%
Through	109.8	26.8%	149.2	21.1%	1.1%	+35.8%
Total	**409.6**	**100.0%**	**707.8**	**100.0%**	**2.0%**	**+72.8%**

Industrial Outlook by Sector

The FAF data reveals that rates of growth differ significantly by commodity. To provide an illustration of the differences and infer emerging trends, Table 2-57 shows total shipments and rates of growth for the 15 largest commodities (in terms of existing tonnage of shipments). As indicated in the table, the top 15 commodities are expected to grow ranging from -3.8% to 4.9%. While Chemicals or Allied Products are expected to experience the second most amount of growth at 200.8%, or 4.0% annually, the top commodity is expected to grow from almost 82.9 million tons to 249.3 million tons. Meanwhile, Coal is expected experience notable decline with almost a 66.6% reduction in 2050 compared to 2022 levels, or an average annual growth of -3.8%.

Table 2-57: Freight Forecast for Top Commodities, 2022 and 2050

Commodity Name	Thousands of Tons (2022)	Thousands of Tons (2050)	CAGR	Total Growth
Chemicals or Allied Products	82,872	249,285	4.0%	+200.8%
Nonmetallic Minerals	50,764	79,488	1.6%	+56.6%
Farm Products	48,781	71,421	1.4%	+46.4%
Misc Mixed Shipments	45,190	69,890	1.6%	+54.7%
Coal	43,584	14,578	-3.8%	-66.6%
Food or Kindred Products	38,446	74,219	2.4%	+93.0%
Petroleum or Coal Products	28,222	32,398	0.5%	+14.8%
Transportation Equipment	14,392	31,680	2.9%	+120.1%
Primary Metal Products	11,380	14,598	0.9%	+28.3%
Pulp, Paper or Allied Products	8,895	12,350	1.2%	+38.8%
Clay, Concrete, Glass or Stone	8,681	9,812	0.4%	+13.0%
Waste or Scrap Materials Not Identified by Producing Industry	6,241	9,122	1.4%	+46.2%
Logs, Lumber, Wood Prod.	5,138	7,593	1.4%	+47.8%
Rubber or Misc Plastics	2,570	5,281	2.6%	+105.5%
Apparel or Related Products	2,366	9,031	4.9%	+281.6%

Conclusion

Texas freight movements include outbound, inbound, intrastate, and interstate (through) across a wide range of commodities, destinations, and measures such as tonnage and carloads. A condensed summary of the analysis is provided below:

- Total Movements – A total of 409.6 million tons and 10.1 million carloads were moved over Texas' rail network in 2022.
- Outbound Movements – Outbound movements accounted for 15.6% of the total freight volume, with 64.0 million tons transported over Texas' rail network. Chemicals or Allied Products was the largest share (46.1%) of outbound movements based on tonnage.
- Inbound Movements – Inbound movements accounted for 40.3% of the total freight volume, with 165.1 million tons transported over Texas' rail network. Coal traffic reflected the largest share (25.0%) of inbound movements based on tonnage.
- Intrastate Movements –17.2% of freight volume transported over Texas' rail network in 2022 were intrastate movements. The largest commodity, based on tonnage, that was transported within Texas were Non-Metallic Minerals (41.1%).
- Through Movements – Through movements reflected the second largest share (29%) of the total freight volume, with 109.8 million tons transported over the Texas rail network. Of the 109.8 million tons, 31.6 million tons, or 28.8%, were Miscellaneous Mixed Shipments.

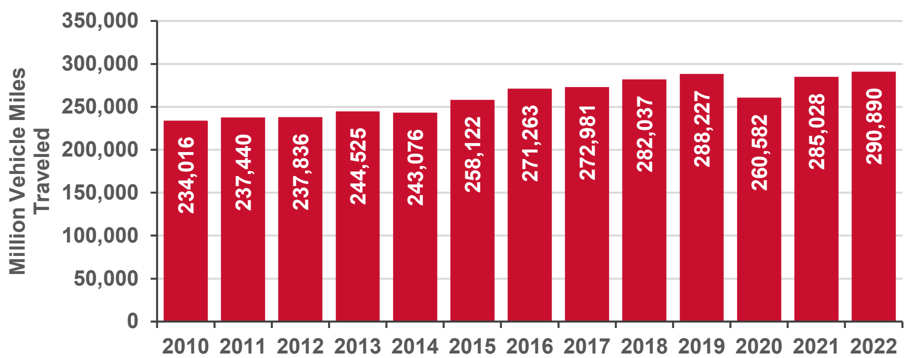
Freight Movement Forecast – Total freight growth, in tonnage, over the Texas rail network is expected increase by 72.8% (or an average of 2.0% per year). Additionally, when assessing it the freight growth by the direction of the freight traffic (i.e., inbound, outbound, intrastate, and through), inbound and through traffic are expected to grow slightly, while outbound and intrastate traffic are expected to be experience relatively high growth.

Passenger Travel Demands

Travel Demand – Highways

Figure 2-69 shows the trends in highway passenger travel in Texas over the period 2010 to 2022. In 2022, Texas passenger highway vehicle-miles traveled (VMT) amounted to 290.9 billion.[83] Prior to 2022, total VMT has been generally trending upwards reaching a peak of 288.2 billion VMT in 2019 before a dip in 2020 due to COVID-19, which saw a 9.6% decline relative to the previous year. However, VMT not only bounced back but the 2022 level surpassed the previous peak in 2019.

Figure 2-69: Texas Passenger Highway Vehicle-Miles Traveled



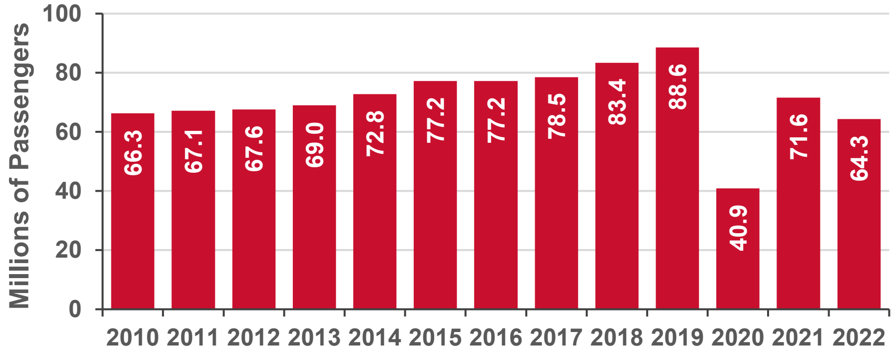
Source: Bureau of Transportation Statistics, State Transportation Statistics, State Highway Travel. (Accessed: June 2024)

Travel Demand – Air Travel

Figure 2-70 shows the number of total passengers in Texas from 2010 to 2022. Based on the figure, air travel demand was trending upwards from 66.3 million in 2010 to the peak of 88.6 million in 2019, or an average annual growth of 3.3% per year. As expected, air travel demand was significantly impacted by the COVID-19 pandemic due to various travel restrictions, resulting in 53.8% drop in air travel passengers in 2020 relative to 2019. Since 2020, air travel demand has slightly rebounded in 2021 with 71.6 million passengers but saw a decline in 2022 (64.3 million).

83 Bureau of Transportation Statistics, State Transportation Statistics, State Highway Travel (Accessed: June 2024).

Figure 2-70: Total Air Travel Passengers in Texas



Sources: Bureau of Transportation Statistics, State Transportation Statistics, U.S. Airline Traffic by Airport. (Accessed June 2024)

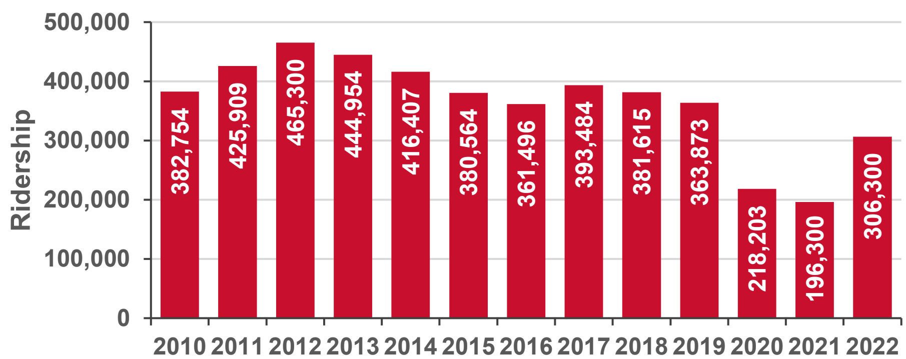
Travel Demand Intercity Rail

In Texas, Amtrak operates one state-supported train, the Heartland Flyer (daily Fort Worth- Gainesville-Oklahoma City) and two National Network trains:

- The Sunset Limited (tri-weekly Orlando-New Orleans-Los Angeles via Houston, San Antonio, and El Paso).
- The Texas Eagle (daily Chicago-Dallas-San Antonio with tri-weekly through car service via the Sunset Limited to Los Angeles).

Figure 2-71 shows the recent trends in ridership in Texas. The figure shows that prior to 2020, the annual average ridership was approximately 400,000. However, ridership dropped in 2020 and 2021 due to the COVID-19 pandemic, but it bounced back to over 300,000 in 2022. In particular, the 2022 ridership increased by 56% relative to the 2021 ridership. Moreover, in Amtrak's Fact Sheet for Texas in Fiscal Year (FY) 2023 reported a ridership of almost 390,000 within the State.[84]

Figure 2-71: Amtrak Train Ridership in Texas



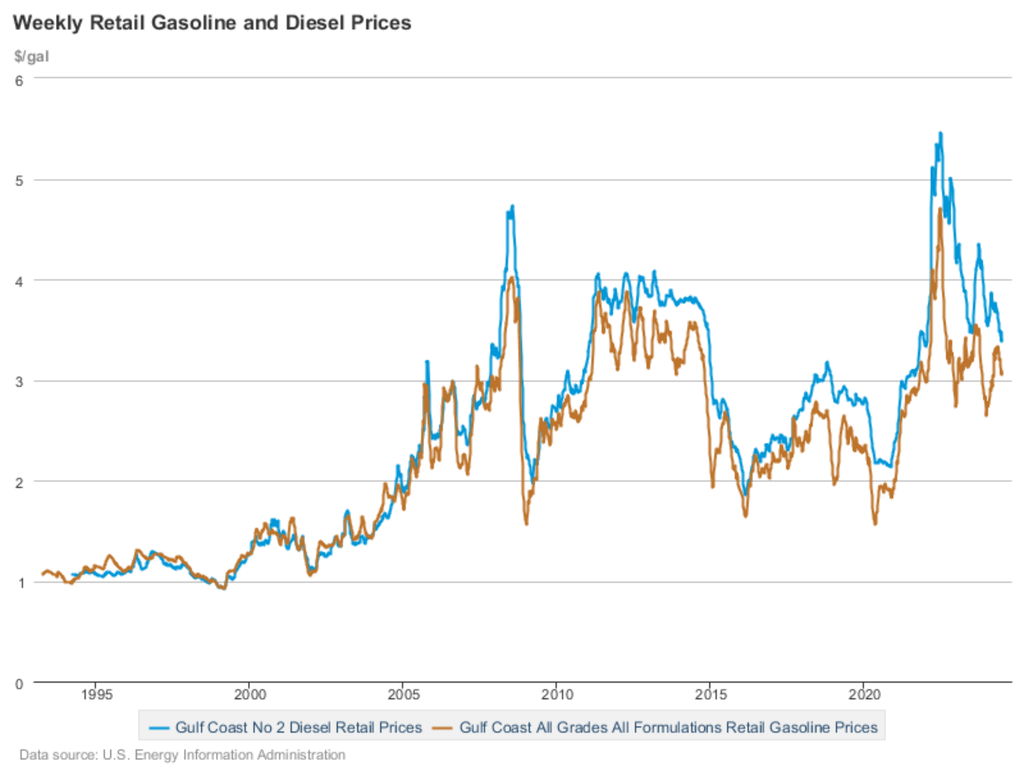
Source: U.S. Bureau of Transportation Statistics, State Transportation Statistics. Amtrak Ridership. (Accessed: June 2024)

84 Amtrak. Amtrak Fact Sheet Fiscal Year 2023: State of Texas. https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/statefactsheets/TEXAS23.pdf. Accessed June 2024.

Fuel Cost Trends

Trends in fuel costs (gasoline and diesel) over the previous years are shown in Figure 2-72. In 2022, fuel prices have reached an all-time high due to market forces. Higher fuel costs tend to increase the cost of trucking more so than the cost of shipping by rail. As a result, rail may become a more attractive shipping option for many shippers if fuel costs remain elevated over a long period.

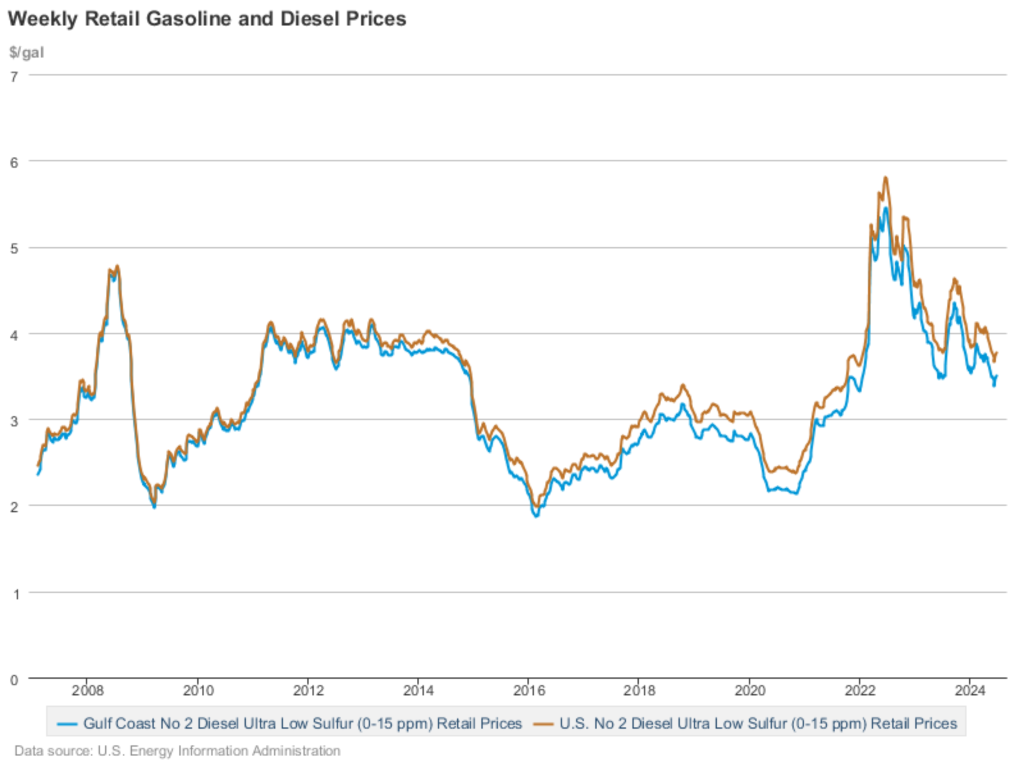
Figure 2-72: Weekly Retail Gasoline and Diesel Prices, 1995 to 2022



Looking specifically at ultra-low diesel fuel costs from 2008 to 2024 for the Gulf Coast, the trends have also not varied substantially from the nationwide average, according to the U.S. Energy Information Administration (EIA). See Figure 2-73.

Both the average price of ultra-low sulfur diesel in the Gulf Coast Petroleum Administration for Defense Districts (PADD) and the national average bottomed out around $2.18 per gallon and $2.30 per gallon respectively in 2016. Since then, the fuel prices generally trended upwards, with the exception of the drop during 2020, reaching a peak of $4.68 per gallon and $4.99 per gallon respectively in 2022 before prices started to trend downwards. The slight drop in 2020 is likely attributable to the early impacts during the COVID-19 pandemic, while the spike in 2022 reflects the impacts of inflation following the COVID-19 pandemic.

Figure 2-73: Weekly Ultra-Low Diesel Fuel Prices, 1995 to 2022



Highway and Airport Trends

Highway Congestion

Per the Texas Transportation Plan 2050, the state has the largest road network in the U.S. with over 323,000 centerline miles and over 55,000 bridges.

Texas has more than 200,000 lane-miles of roadways. In 2022, there were 167,002 million vehicle miles traveled (VMT) in urban areas and 70,834 million VMT in rural areas throughout the state – roughly two and three times the national averages, respectively. To put in perspective to other states, Texas had over 4.5 billion vehicle-miles traveled on its roads in August of this year. The next highest VMT in the United States was California with 2.8 billion.

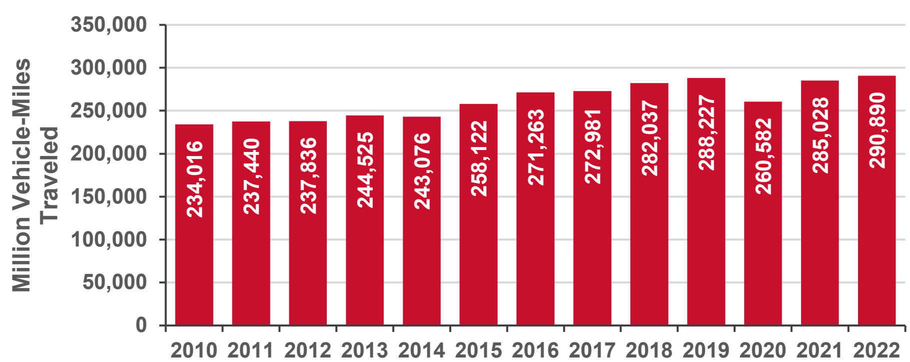
As the population in Texas continues to grow, so does the number of vehicle miles traveled or VMT and with little added lane miles to travel on, this results in additional congestion. By 2040, the annual number of vehicle miles traveled is expected to increase by 60% over that traveled in 2010. In Texas 87% of population lives in counties along or east of I-35. Projections for 2050 show over 100% growth in the four largest metropolitan areas over the population in 2018.

Table 2-58: Lane-Miles Changes from 2018 to 2022 by Roadway Type

Type of Roadway	2018 Lane-Miles	2022 Lane-Miles	% Change
Interstate Highways	26,827	28,038	4.5%
US Highways	37,938	38,393	1.2%
State Highways, Spurs, Loops, Business Routes	45,938	47,475	3.3%
Farm or Ranch to Market Roads and Spurs	85,032	85,587	0.7%
Park and Recreation Roads	804	798	-0.7%
Total	196,539	200,291	1.9%

As shown in Table 2-58, between 2018 and 2022, there have been a general slight increase in number of lane miles in the state. Specifically, there was a 1.9% increase in the total lane-miles. Similarly, the total highway vehicle-miles traveled between 2018 and 2022 increased from 282.0 billion vehicle-miles to 290.9 billion vehicle-miles, or 3.1% increase.[85]

Figure 2-74: Vehicle-Miles Traveled (2010 – 2022)



Source: U.S. Bureau of Transportation Statistics. State Transportation Statistics. State Highway Travel. (Accessed July 2024)

Airport Congestion

According to the FAA's data showing enplanements of every American commercial airport, Fort Worth and Dallas have the 4th and 29th ranked airports by enplanements (Table 2-59). Houston has the 15th and 36th ranked, Austin has the 33rd, and San Antonio has the 44th. From 2022 to 2023, San Antonio International Airport saw the largest growth with a 12.3% increase in enplanements. Meanwhile, of the top airports in Texas, the Dallas Love Field Airport saw the relative smallest growth with only a 4.3% increase in enplanements. Overall, airports in Texas experienced a 9.8% growth in enplanements between 2022 and 2023.

85 U.S. Bureau of Transportation Statistics. State Transportation Statistics. State Highway Travel (Accessed July 2024)

Table 2-59: Total Enplanements of Texas' Commercial Airports, 2022-2023

U.S. Rank	City	Airport Name	2023 Enplanements	2022 Enplanements	% Change
2	Fort Worth	Dallas-Fort Worth International	39,246,196	35,345,138	11.0%
15	Houston	George Bush Intercontinental/Houston	22,228,829	19,814,052	12.2%
29	Dallas	Dallas Love Field	10,833,394	10,382,573	4.3%
33	Austin	Austin-Bergstrom International	8,559,009	7,819,129	9.5%
36	Houston	William P Hobby	6,800,214	6,462,948	5.2%
44	San Antonio	San Antonio International	5,336,674	4,751,610	12.3%
72	El Paso	El Paso International	2,018,134	1,931,067	4.5%
		All Other TX Commercial Airports	3,899,379	3,579,169	8.9%
		Total	**98,921,829**	**90,085,686**	**9.8%**

Source: U.S. Federal Aviation Administration CY 2023 Enplanements at All Airports (Primary, Non-primary Commercial Service, and General Aviation) – Preliminary. June 18, 2024.

For air cargo, volumes through the various airports in Texas increased between 2021 and 2022. The top 3 largest volume increases between 2021 and 2022, according to FAA data, came from Dallas-Fort Worth International (159,800 metric tons), Laredo International (80,800 metric tons), and Austin-Bergstrom International (50,700 metric tons). While most airports experienced an increase in air cargo volume, Valley International (-7.5%), Lubbock Preston Smith International (-4.6%), and George Bush International (-0.4%) observed a slight decline in air cargo volumes between 2021 and 2022.

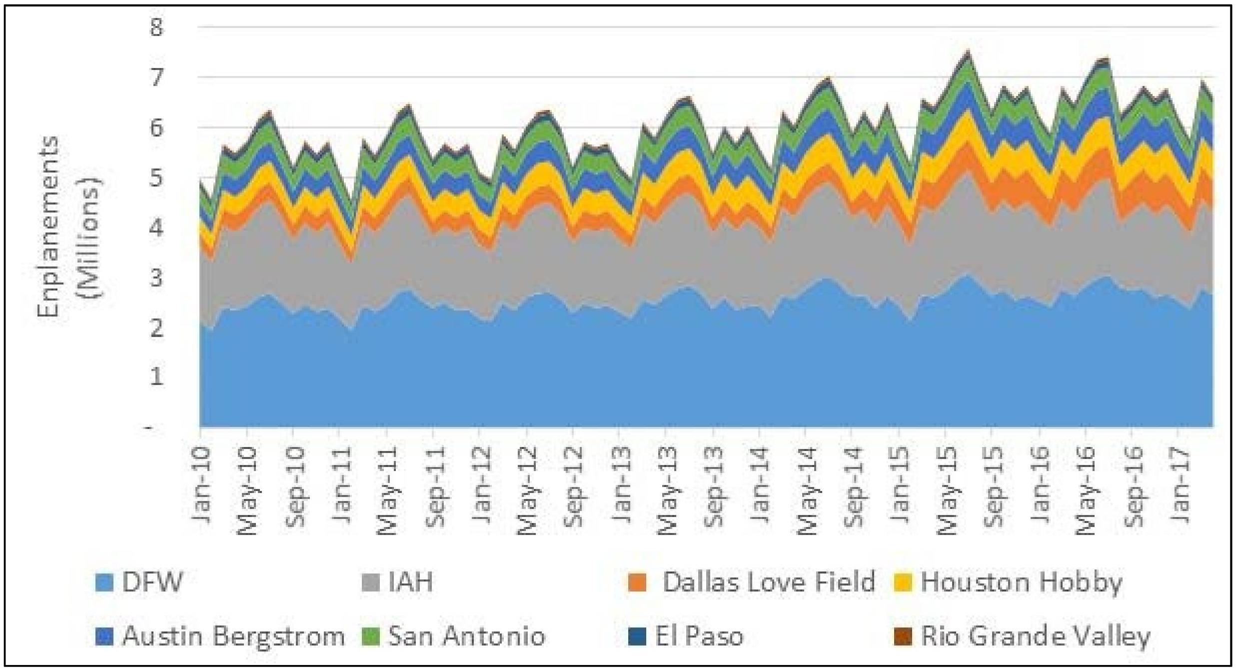
Table 2-60: Total Cargo Weight Landed of Texas' Commercial Airports, 2021-2022

U.S. Rank	City	Airport Name	2023 Landed Weight (metric tons)	2022 Landed Weight (metric tons)	% Change
11	Fort Worth	Dallas-Fort Worth International	1,935,416	1,775,611	9.0%
19	Fort Worth	Perot Field/Fort Worth Alliance	1,144,932	1,096,135	4.5%
22	Houston	George Bush Intcntl/Houston	1,022,416	1,026,539	-0.4%
36	San Antonio	San Antonio International	414,708	404,483	2.5%
40	Laredo	Laredo International	366,713	285,902	28.3%
41	Austin	Austin-Bergstrom International	361,175	310,475	16.3%
42	El Paso	El Paso International	352,890	342,086	3.2%
76	Lubbock	Lubbock Preston Smith International	172,251	180,582	-4.6%
98	Harlingen	Valley International	102,864	111,155	-7.5%
127	San Antonio	Kelly Field	37,110	23,657	56.9%
134	Brownsville	Brownsville/South Padre Island International	8,093	5,967	35.6%
141	Houston	William P Hobby	136	92	47.3%
		Total	**5,918,703**	**5,562,682**	**6.4%**

Source: US Federal Aviation Administration. CY 2022 Qualifying Cargo Airports, Rank Order, and Percent Change from 2021. August 24, 2023.

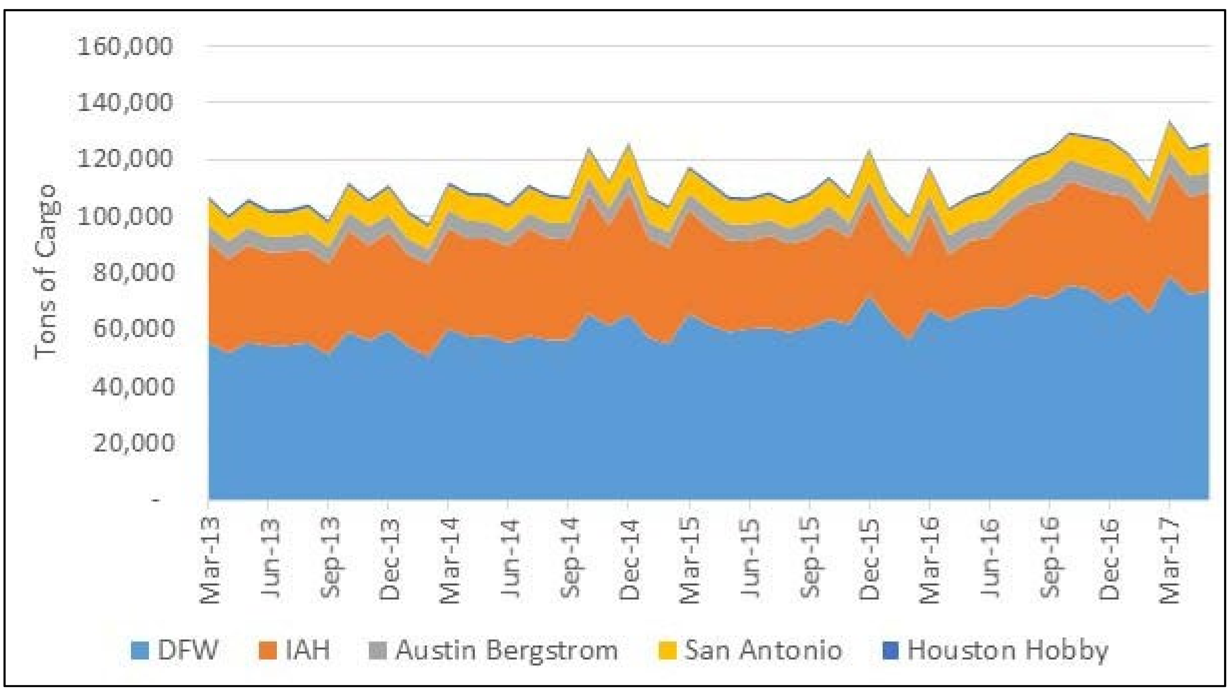
For longer term trends of enplanements and cargo at Texas Airports, TTI released enplanement data from January 2010 to January 2017 (Figure 2-75) and cargo data from March 2013 to March 2017 Figure 2-76).

Figure 2-75: Texas Major Airports Monthly Enplanements



Source: https://policy.tti.tamu.edu/finance/texas-transportation-economic-indicators/#7.

Figure 2-76: Texas Major Airports Monthly Cargo



Source: https://policy.tti.tamu.edu/finance/texas-transportation-economic-indicators/#7.

Economic growth contributes to the growth of commercial airport activity in Texas and, if the economic trends continue in Texas' major metropolitan areas, further increases in enplanements and cargo tonnage landed at our airports can be expected.

As air traffic play a crucial role within the Texas economy, TxDOT has reported over $454 million of airport improvement projects within the 2024 – 2026 capital improvement program (CIP). Additionally, the identified projects were determined based on present day system needs as well as the objectives, which in order of importance are enhance safety, preserve existing facilities, respond to present needs, and provide for anticipated needs.[86]

Rail Service Needs and Opportunities

This section describes current needs and opportunities for the existing freight and passenger rail systems in Texas.

Freight Rail Needs and Opportunities

Rail Corridor Development Patterns

As owners and operators of large rail transportation networks, BNSF, CPKC, and UP manage their businesses across state lines, with each of the railroads facing off for market position within much of the Midwest and Western U.S. states. The railroad networks that connect key regional markets are considered rail freight corridors, with the majority of freight rail corridors spanning multiple states.

Texas is located in the Sunbelt and is bounded by the Gulf of Mexico. The state has close proximity to other major rail hubs in neighboring states – including Little Rock, Arkansas; Oklahoma City, Oklahoma; New Orleans, Louisiana; and Memphis, Tennessee. Many of the rail corridors in the regional and national rail network either connect to or pass through Texas.

Class I freight railroads provide the capital necessary for their own network corridor infrastructure improvements. Yet in recent years, some Class I railroads have made corridor improvement investments that have involved public financial assistance, typically justified on the basis of the public benefits from reducing truck traffic and truck emissions on parallel portions of highway network. A primary interest of the state of Texas is in the impacts on the connecting short line railroads, enhanced access to the state's rail network, and potential connections to river ports and border crossings.

The remainder of this section discusses Class I freight railroad corridors in Texas and elsewhere in the Southern U.S. that affect Texas in some way. While the focus is on freight rail corridors, some or portions of these routes may have potential to expand existing or add new passenger rail service in coordination with the ongoing operations of the freight railroads in Texas.

86 Texas Department of Transportation. Aviation Capital Improvement Program 2024 - 2026. August 2023.

Freight Railroad Corridors

BNSF Corridors of Commerce

BNSF has designated Corridors of Commerce within its network of routes in the U.S. and Canada to create jobs; deliver rail transportation, safety, and environmental benefits; and promote U.S. economic growth and competitiveness.

Two of the three BNSF Corridors of Commerce intersect with Texas – the MidCon Corridor and the Transcon Corridor.

The BNSF MidCon Corridor extends from Canada and Duluth, Minnesota, through the U.S. Heartland to southern ports in Texas and to connections with other railroads at the U.S.- Mexico border. The MidCon Corridor is a primary conduit for the U.S. energy supply, include coal movements to utilities for power generation and unrefined petroleum products from the Bakken in North Dakota and refined petroleum products from the U.S. South. The MidCon also handles substantial volumes of agricultural products for export. BNSF has invested significant resources in upgrading the MidCon Corridor over the past decade, including the construction of new or extended meet and pass sidings, the installation of RCPS technology at key siding locations, and the implementation of PTC. BNSF has spent nearly $40 billion in the last decade as part of its capital investment program to maintain its infrastructure and to ensure the safe movement of goods.[87]

Figure 2-77: BNSF MidCon Corridor

The MidCon Corridor is identified in Figure 2-77**.** and connects with BNSF's other two Corridors of Commerce as identified below:

- Great Northern Corridor between Chicago, Illinois and Seattle, Washington/Portland, Oregon – at Fargo, North Dakota.
- Transcon Corridor between Chicago, Illinois/St. Louis, Missouri/Atlanta, Georgia/Fort Worth, Texas and Los Angeles/San Diego/Oakland, California – at Kansas City, Missouri, and Ellinor, Kansas.

The BNSF Transcon Corridor extends from Chicago, Illinois; St. Louis, Missouri; and Atlanta, Georgia, through the U.S. Heartland and U.S. South to West Coast ports and major metropolitan areas in the U.S. Southwest and West including Fort Worth and El Paso, Texas; Albuquerque, New Mexico; Phoenix, Arizona; San Diego, Los Angeles, Stockton, Sacramento, and Oakland, California.

The Transcon Corridor is a major import and export gateway for U.S. businesses and consumers and is a primary conduit for high volumes of consumer goods. The Transcon also handles substantial volumes of agricultural products

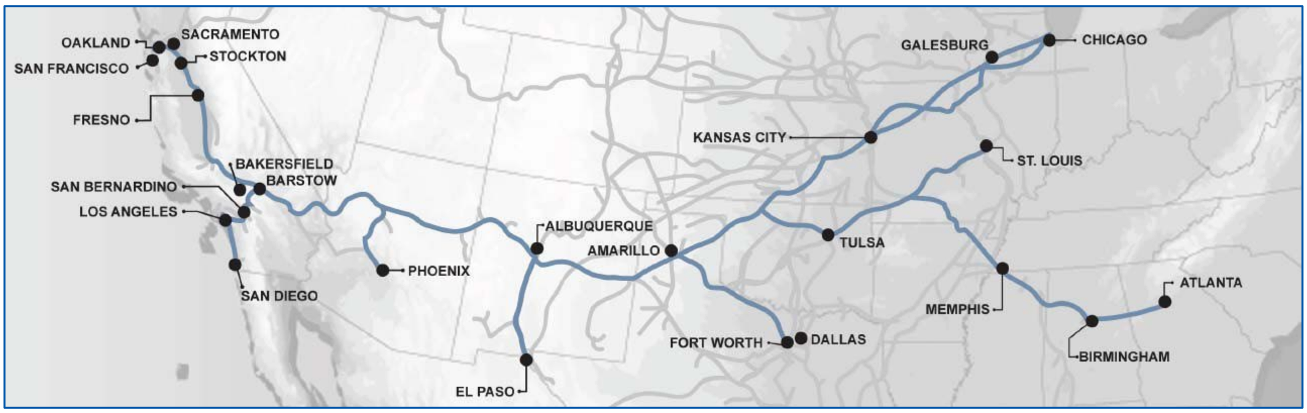
87 https://www.bnsf.com/about-bnsf/bnsf-review/2022/service.html.

and other bulk products. BNSF has invested heavily in the Transcon Corridor in the last decade to ensure the safe movement of goods, increase capacity by triple and quadruple tracking some segments; expanding and enhancing operations in Becker, New Mexico; and undertaking several maintenance projects.

The Transcon Corridor is identified in Figure 2-78 and connects with BNSF's other two Corridors of Commerce as identified below:

- MidCon Corridor identified earlier in this section – at Kansas City, Missouri, and Ellinor, Kansas.
- Great Northern Corridor between Chicago, Illinois and Seattle, Washington/Portland, Oregon– at Chicago, Illinois.

Figure 2-78: BNSF Transcon Corridor



Union Pacific Corridors

Union Pacific Railroad (UP) has multiple main lines that traverse Texas in a north-south and east- west orientation. Through mergers of the Missouri Pacific (MP or MoPac), Missouri-Kansas-Texas (MKT or Katy), and the Southern Pacific (SP), UP has gained access to much of Texas. The UP rail network in Texas radiates from key hubs in Dallas/Fort Worth, San Antonio, and Houston, with reaches to New Orleans, California, St. Louis, Kansas City, and Mexico. The railroad traverses through most major Texas cities, and is the only railroad serving all six major Mexico gateways four of which are in Texas – Laredo, El Paso, Brownsville, and Eagle Pass. International trade represents a large part of UP's carload business.

Canadian Pacific Kansas City Corridors

Canadian Pacific Kansas City (CPKC) operations in Texas are primarily overhead shipments. Overhead shipments occur when the rail carrier is neither the originating nor destination carrier. Goods hauled by CPKC in Texas include intermodal, coal, and feed products that are traveling between the Kansas City Area and East Coast and destinations in Texas and Mexico. The principal north/south main line for CPKC bifurcates Arkansas and Louisiana from Kansas City and enters into Texas just west of Shreveport, Louisiana.

The Meridian Speedway is a line (320 miles in length) jointly owned by Norfolk Southern Railway and CPKC that offers streamlined rail service from the Dallas, Texas market to the Northeast. This line begins in Meridian, Mississippi and terminates in Shreveport.

Another principal CPKC rail line diverges off the north/south main line and enters Texas just west of Lake Charles, Louisiana, near Beaumont, Texas. This line follows the Gulf Coast, with areas of service operating on UP main track, and terminates in Laredo. A CPKC company, Kansas City Southern de Mexico, provides rail service within Mexico and connects the CPKC in in Laredo to Brownsville, Texas, as well.

Factors Driving Rail Corridor Development in Texas

Many external factors are generally affecting the demand for use of rail corridors as well as influencing Class I railroads' business and network investment strategies. Some of the key factors influencing rail corridor development generally are identified in this section.

Expansion of the Panama Canal

The Panama Canal was opened in 1914 as a major international trade artery that cuts through the Isthmus of Panama and connects Pacific Ocean and Atlantic Ocean trade routes. In 2016, the Panama Canal Authority officially opened a larger, third set of locks on the canal. This project significantly increased the throughput capacity of the canal and allows for much larger vessels to transit the locks, potentially providing savings from greater economies of scale for shippers on Panama Canal trade routes. The canal capacity for container vessels, previously limited to 4,500 Twenty-foot Equivalent Units (TEU) ships, are increasing to container vessels of 12,500 TEU capacity. The greater capacity of the locks will permit larger dry bulk and tanker vessels to also use the canal. This expansion project creates an opportunity for the ports in the eastern and southern U.S. to capture additional ocean trade with Asia and West Coast of South American countries – traffic that, until now, has bypassed Atlantic ports and traveled instead to ports on the West Coast before traveling to or from the eastern and southern U.S. by rail or truck. Additional international trade could be carried to and from Atlantic ports by rail, if port market shares increase. International trade commodities traveling cross-country by rail through Texas to or from Atlantic and Pacific Coast ports may see a decrease in share.

Increases in Domestic Intermodal Transportation

The Class I railroads are increasingly focused on growing their intermodal container business and facilities. The intermodal business has been part of the railroads' services since the 1960s, and it grew substantially between 1980 and 2000. Intermodal transportation may include a truck trailer on a flat car (TOFC) or a shipping container stacked one or two high on specialized container well railcars or other flatcars (COFC). COFC was first initiated to serve international ocean container traffic at container ports, but within the last decade, railroads have grown their domestic intermodal container businesses nationwide. The railroads have accomplished this generally by offering speed and pricing of service and intermodal container yards located where they are useful to truckers, thus replacing the need for truck drivers to drive long-haul distances far from home and to better address the present and surging shortage of truck drivers in the U.S. The domestic intermodal service uses larger size containers than used in ocean shipping, matched instead to standard highway trailer sizes that are 53 feet long and taller and wider than a standard 40-foot-long international ocean container.

Major intermodal rail facilities are located in Amarillo, El Paso, Dallas, Fort Worth, Houston, and Laredo with additional facilities located in smaller areas such as Donna, Rosenberg, and Wylie. In total, Texas is home to approximately 20 intermodal rail facilities, concentrated mostly in the eastern portion of the state. BNSF and UP also

operate intermodal facilities at the Port of Houston, which is the number one seaport by volume (tonnage) in the U.S. The state's two intermodal logistics facilities, Alliance and Port San Antonio, have direct access to BNSF and UP. Intermodal facilities for CPKC are located primarily in the Dallas/Fort Worth area and Laredo.

In 2023, BNSF and UP expanded their intermodal transportation reach from Barbours Cut Container Terminal at the Port of Houston. BNSF now operates container intermodal trains between Barbour's Cut, Fort Worth (Alliance), Texas, and Denver, Colorado. UP provides intermodal service between Barbour's Cut and Denver, Salt Lake City, Oakland, Los Angeles, El Paso, and Dallas/Fort Worth.

The need for new or expanded intermodal facilities within Texas was identified in the 2050 Texas Transportation Plan. The state and stakeholders will need to support multimodal and intermodal planning, project development, and investments in the future. Partnerships with railroads, specifically the short line railroads in which the state is already in partnership will be critical to the success of any plan.

Changes in Energy Production: Oil, Gas, and Coal

Texas leads the nation in energy production, primarily from crude oil and natural gas, providing more than one-fourth of U.S. domestically-produced energy. Crude oil and natural gas resources are present across the entire state of Texas. In 2023, Texas was the leading oil- and natural gas- producing state, producing more than two-fifths of the nation's crude oil and one-quarter of U.S. marketed natural gas production. Coal is found in bands that cut across the eastern Texas coastal plain and in other coal-producing areas in the north-central and southwestern parts of the state. With the abundance of this resource, Texas is ranked as the seventh-largest coal producer and the largest lignite coal producer in the nation.

Within the last fifteen years, there has been significant growth in U.S. domestic production of oil and gas through the application of hydraulic fracking and directional drilling – of which Texas has directly benefitted from. In 2023, annual output reached a record high when annual production in Texas surpassed 2 billion barrels. The state's 34 petroleum refineries can process almost 6.3 million barrels of crude oil per day, as well. Rail has played a significant part in supplying drilling equipment and materials, such as frac sand and tubular steel to these operations. Texas has oil and gas fields and oil refineries affected by the growth of fracking. Frac sand and drilling supplies shipped by rail are also transported through Texas, both to sites within the state and in neighboring states, e.g., Oklahoma, Louisiana, and so on. Rail service has also made production possible in areas without or with inadequate pipeline capacity and allows for flexibility in delivery. Since 2010, this sustained increase (and sometimes surges) to traffic may have impacts that are significant to the national and Texas railroad networks.

Combined with the cost of complying with emissions regulations, coal-fired electric generating plants are increasingly becoming uncompetitive with natural gas fired plants. Retirements of coal-fired plants nationwide are increasing and accelerating – a trend which has implications for coal transport by rail and would be traditionally significant for Texas, as large volumes of coal produced within Texas travels over the state's rail network enroute to markets in the U.S. South or terminates in Texas itself. Less direct effects on the Texan economy and rail network may be relatively greater manufacturing and related shipping activity, as lower electricity prices may make Texas even more competitive as a manufacturing location, including products for export.

Other Needs and Opportunities for Texas' Freight Railroads

This section identifies and describes generally some needs and opportunities for freight railroads located in Texas. Proposed freight rail improvements and potential investments aimed at targeting freight rail needs and opportunities and a recommended approach for finding potential solutions is discussed in Chapters 4 and 5 of the Texas Rail Plan.

Upgrades to Accommodate Heavier Railcars

Railroads in Texas have made considerable progress in the last two decades to upgrade track and bridges to accommodate heavier railcars with maximum allowable gross weights of 286,000 pounds (lbs.). Railcars with a maximum gross weight of 286,000 lbs. are becoming an industry standard for railroad transportation. During the coordination for the Texas Rail Plan, some of the Class III railroads in Texas identified the need to upgrade track and bridges to increase capacity and, in some instances, also to accommodate 286,000 lb. railcar loadings on some or all segments of their rail networks. The ability to handle maximum carloads of 286,000 lbs. is of importance to 1) railroads to increase operational efficiencies, and 2) to railroad shippers to maintain local rail access and the ability to compete in the marketplace. Railroad shippers on short lines that can only accommodate railcars with a maximum allowable gross weight of 263,000 lbs. or 268,000 lbs. must compete with firms served by Class I railroads whose lines have the capacity for 286,000 lb. cars. These "heavy" railroad-served shippers can load more cargo per car and thus realize a transportation cost savings relative to short line railroad shippers whose serving railroad cannot handle the heavier car weights.

Some segments of the Class I and networks in Texas with lighter traffic densities are also unable to accommodate 286,000 lb. cars at present.

Enhanced Railroad Access

One potential solution for shippers in Texas to remain competitive in the regional, domestic, and global marketplaces and to spur economic development, employment, and income in the state, is enhanced access to the Texas railroad network. Enhanced railroad access could be provided, for example, through the rehabilitation of existing railroad branch lines; development of improved or new industrial spurs; and optimization of existing access to transload facilities in Texas and construction of additional transload facilities and intermodal facilities to meet demand for multimodal transportation and to address numerous transportation challenges.

Reduction of Network Challenges

Network challenges exist throughout the railroad network in Texas, which limits railroad operating capacity, efficiency, velocity, and safety, in addition to overall freight mobility. Typical network challenges in the state include insufficient capacity on main tracks and in terminals and rail yards to accommodate present and future train volumes, interchange of traffic between railroads, and provision of rail switching; operating delays at railroad junctions and at movable bridge spans over principal navigable waterways; bridges that limit vertical and horizontal clearances and restrict the types of rail car equipment that can be accommodated; and potential effects on infrastructure and service for rail lines located in a major floodplain.

Port-Rail Needs and Opportunities

Much of the freight carried by rail comes into Texas through ports-of-entry (POEs), such as seaports. As rail is often utilized for shipment of bulk goods and is not typically a suitable, direct-to-consumer mode of transport, the ability of rail to transport goods and commodities from these locations to intermodal terminals, transload terminals, warehouse and distribution centers, and dock facilities are integral to the supply chain.

As the port infrastructure in the state continues to grow and expand, so must the associated rail infrastructure. Each of the major freight seaports in Texas is served by at least one Class I railroad, as shown in Table 2-61.

Table 2-61: Texas Ports and Connecting Railroads

Port	Connecting Railroads
Beaumont	BNSF, CPKC, UP
Brownsville	Brownsville & Rio Grande International switching with BNSF, CPKC, UP
Corpus Christi	BNSF, CPKC, UP
Freeport	UP
Galveston	BNSF, UP
Harlingen	UP
Houston	BNSF, CPKC (via trackage rights), UP
Orange	UP
Port Arthur	CPKC, UP
Port Lavaca-Point Comfort	Port Lavaca via UP, Point Comfort via Point Comfort & Northern
Texas City	Texas City Terminal Railway switching with BNSF, UP
Victoria	BNSF, UP

Source: TxDOT

The opportunity for enhanced multimodal transportation opportunities could potentially be met through investments targeted to promote interconnectivity and capacity. Such investment could include the construction or rehabilitation of existing rail connections between principal railroad lines and seaport properties and additional sidings, spurs, or yard tracks for switching, staging, and storing railcars at or near port facilities. The addition or enhancement of bulk transload facilities (both dry and liquid) is also noteworthy.

Cross-Border Rail Connections Needs and Opportunities

Efficient customs processing at border entry ports is critical to maintaining the flow of goods at rail crossings. Texas is home to five of the eight U.S. rail border crossings with Mexico, located in Brownsville (West Rail), Laredo (Texas Mexican Railway International Bridge), Eagle Pass (Camino Real International Bridge), El Paso (Bridge of the Americas, which is two separate structures), and Presidio (Presidio-Ojinaga International Bridge).

The Texas Mexican Railway International Bridge, which is owned by CPKC, has a daily maximum capacity of 26 trains per day. In late 2022, CPKC began construction on a second international bridge, parallel to the existing

international bridge. When completed, the plan will be to operate each bridge in opposite directions, which will double the capacity for rail crossings.

In El Paso, one rail bridge is owned by BNSF, while the other UP. Near to the U.S.-Mexico Border in Mexico, both the BNSF and UP line converge into a one-track FerroMex rail line which runs through the Mexican state of Chihuahua and through downtown Ciudad Juárez. This convergence of lines so close to the border creates a bottleneck and limits the number of trains UP and BNSF can operate.

TxDOT owns the South Orient Rail Line (SORR), which once connected the U.S. to Mexico via the Presidio-Ojinaga international rail bridge in Presidio, Texas. Portions of the railroad bridge were severely damaged by fire in 2008 and 2009 leading to the closure of the railroad-border crossing. The short line funded the reconstruction of the railroad bridge, which is scheduled to be reopened by mid-2025.[88]

In 2023, Texas handled 89.75% of the 564,453 loaded containers crossing the U.S.-Mexico border.[89] With the exception of Presidio, the rail border crossings are maintained by the private Class I railroads and provide important links for a wide variety of commodities. Laredo is the leading land POE for rail freight in terms of total trains (40.99% of the U.S.-Mexico total)[90] and loaded rail containers (54.11% of the U.S.-Mexico total).[91]

Freight rail crossings at the border are also a focus for future infrastructure improvements. Existing border rail crossings should continue to be improved (e.g., enhanced staging areas, grade separations, double-tracking, etc.) and potential new rail crossings at the border will be studied and possibly implemented.

Passenger Rail Needs and Opportunities

This section identifies and describes potential passenger rail needs and opportunities in Texas. Specific passenger rail improvement initiatives underway and potential future investments or projects that could address Texas' passenger rail objectives, needs, and opportunities will be discussed in Chapter 3.

The Market – Population and Economic Growth

The state has strong historic population growth, and is expected to remain the second most populous state in the nation. Texas has added 1,000 people per day to its population over the past decade. Between 2000 and 2022, the state's population increased by 43%, reaching a population milestone in 2022 by passing the 30 million threshold, only the second state to do so. Population in Texas is expected to continue to grow, reaching 40.6 million by 2050, an increase of 11 million people from 2020, according to Connecting Texas 2050, TxDOT's statewide long-range transportation plan.[92]

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88 RT&S, Presidio International Rail Bridge Project Pushed to Summer 2025, https://www.rtands.com/track-construction/track-structure/bridges-tunnels/presidio-international-rail-bridge-project-pushed-to-summer-2025/

89 Bureau of Transportation Statistics, Border Crossing/Entry Data, https://data.bts.gov/Research-and-Statistics/Border-Crossing-Entry-Data/keg4-3bc2/data. Selections: Border: U.S.-Mexico Border, Date: 01/01/2023 – 12/31/2023, Measure: Rail Containers Loaded.

90 Bureau of Transportation Statistics, Border Crossing/Entry Data, https://data.bts.gov/Research-and-Statistics/Border-Crossing-Entry-Data/keg4-3bc2/data. Selections: Border: U.S.-Mexico Border, Date: 01/01/2023 – 12/31/2023, Measure: Trains

91 Ibid

92 https://www.txdot.gov/content/dam/docs/projects/slrtp/connecting-texas-2050-slrtp-508c.pdf

The four largest metropolitan areas in Texas – Dallas-Fort Worth, Houston, San Antonio, and Austin – absorbed nearly 88% of the state's population growth in the past decade, according to an analysis of 2020 U.S. Census data by Rice University.[93] Dallas-Fort Worth and Houston gained 2.5 million new residents between 2010 and 2020, representing 60% of the decade's population increase. This type of pattern is projected to continue. Over the next 30 years, the highest growth rate is expected to occur in large urban areas, including Austin, Dallas, Fort Worth and Houston.

Strong economic growth, especially international trade, is also expected to continue, and Texas will continue to outpace national growth rates. Texas has the second-largest economy in the United States, contributing 9% to the nation's economic value in 2022, according to the Connecting Texas 2050 plan. With a Gross State Product of around $2.1 trillion and an annual growth rate of 7%, the fastest among all states, Texas anticipates a substantial Gross State Product increase to $6.8 trillion by 2047.

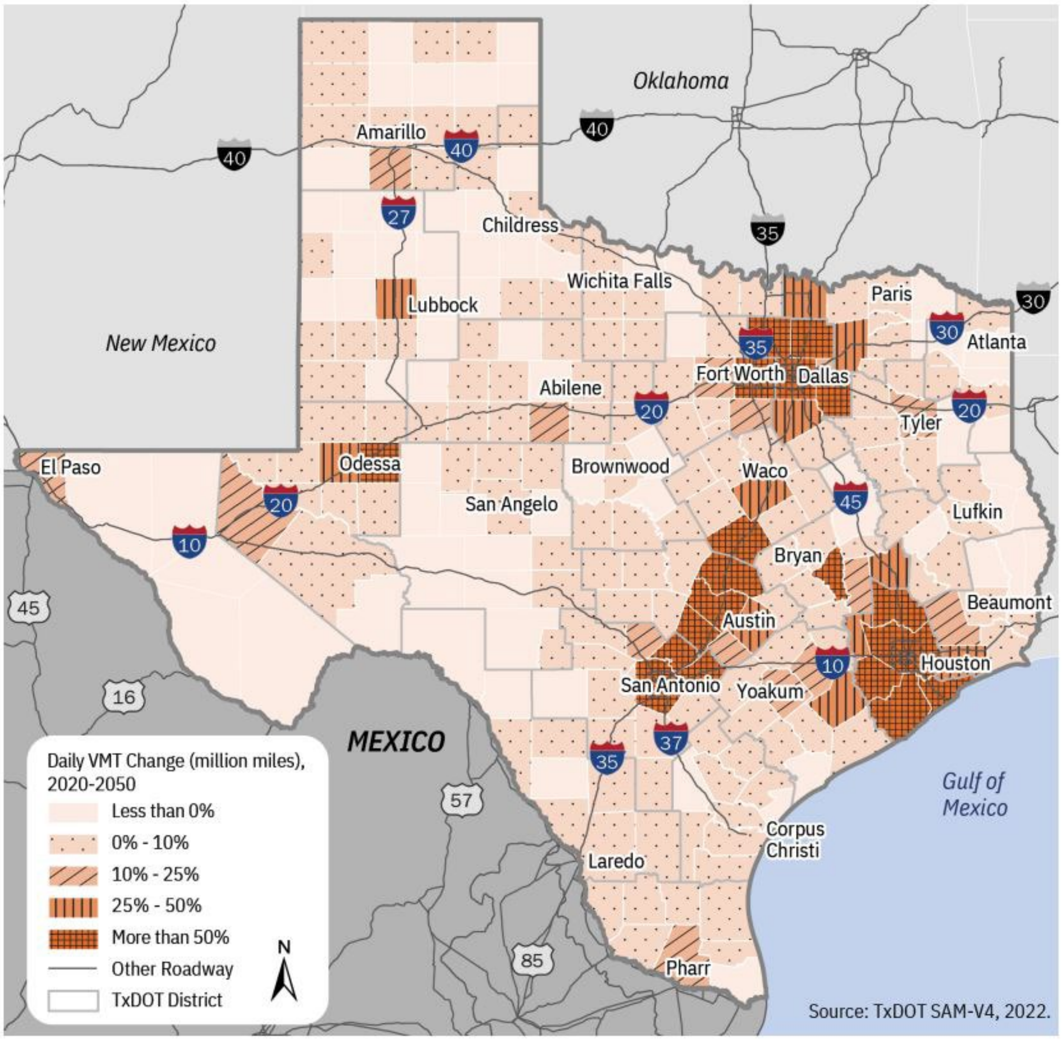
The growth in economic activity means that transportation demand will increase faster than the rate of population increase. However, Texas' current infrastructure offers few viable alternatives to auto/highway travel, which means this growth will translate into dramatic increases in vehicle miles traveled (VMT). The growth in travel demand has remained well above the growth in roadway capacity, leading to increasing congestion and longer travel time. Congestion is a major issue in and between the state's urban areas. Seventy one of the top 100 most congested road sections in Texas are in the Dallas-Fort Worth and Houston metro areas, generating annual congestion costs in each metro area of $3.5 billion in 2022, according to the most recent Texas A&M study of the state's 100 most congested road segments.[94] The average per person hours of delay on Texas roadways exceeded 30 hours per year between 2013 and 2019 and exceeded more than 25 hours of delay in 2022, according to the Connecting Texas 2050 plan.

The growth in population and economic activity are predicted to result in a 42% increase in total VMT by 2050, according to the Connecting Texas 2050 plan. More than 85% of the VMT growth (from 673 million miles in 2020 to 957 million miles in 2050) is expected to occur in the Texas triangle area and along major interstate highways (Figure 2-79). By 2050, nearly 30% of total VMT in the state is estimated to be congested. This growth, almost totally focused in and around major metropolitan areas, indicates a need to consider investment in higher capacity alternatives.

93 https://kinder.rice.edu/urbanedge/2020-picture-texas-comes-focus-diverse-state-dominated-major-metros

94 https://mobility.tamu.edu/texas-most-congested-roadways/

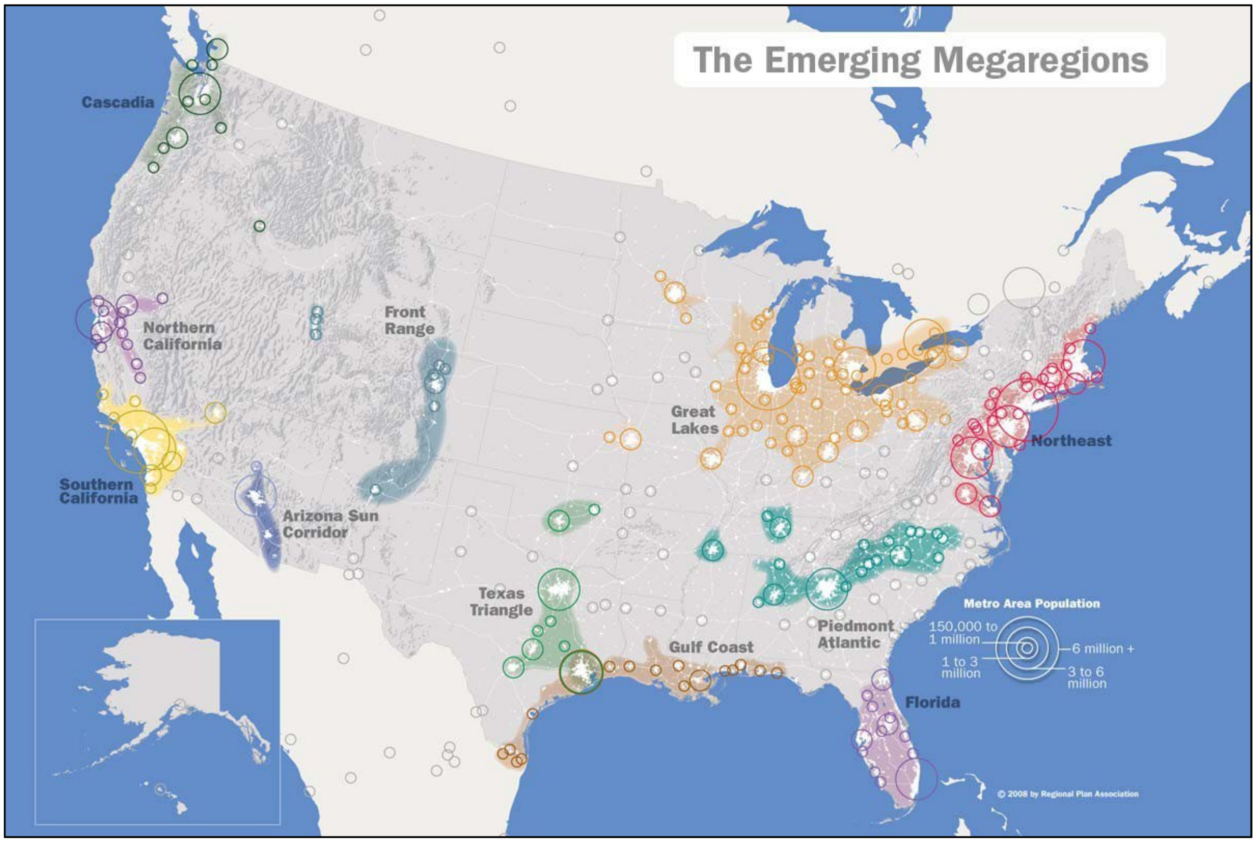
Figure 2-79: Daily VMT Change, 2020—2050



Source: TxDOT, Connecting Texas 2050

Much of this increased travel demand is expected to be in daily commute to work trips and in short- distance trips (less than 600 miles). Texas contains two emerging megaregions, the Texas Triangle and Gulf Coast. A megaregion is a network of metropolitan areas linked by geography, settlement patterns, shared environment, infrastructure systems, economics and trade, shared culture, and history. The Texas Triangle megaregion stretches from Dallas/Fort Worth on the north to Houston and San Antonio on the south. The Gulf Coast megaregion stretches from Brownsville, Texas to Pensacola, Florida. These megaregions are shown in Figure 2-80.

Figure 2-80: Megaregions of the United States in 2050



Three corridors connecting the cities of Houston, San Antonio and Dallas/Fort Worth link the Texas Triangle megaregion. The Houston – Baton Rouge – New Orleans corridor transits the western end of the Gulf Coast corridor. According to the 2006 America 2050 report, most of the nation's population and economic expansion is expected to occur in the emerging megaregions. This increased traffic will strain existing infrastructure beyond capacity and require additional capacity and travel options to avoid gridlock.

Additional investment in lane miles and further "green field" development raises questions about the diminishing value of that strategy. At the point where new lane miles and new development is 60 to 70 miles from the city and 150 miles from the opposite side of the metro area, routine trips to a medical specialist, for example, take on the characteristics of intercity trips. And the longer trips generate more VMTs and additional traffic.

Transit-Oriented Development

One of the challenges to developing intercity rail networks in Texas is the low-density land use patterns, which generate dispersed travel origins and destinations. Working to create more efficient development patterns would provide a strong foundation for an expanded high-volume passenger transportation network. Given the stresses of long commutes many cities and private builders have embraced the concepts of "New Urbanism" and "Transit Oriented Development," which can generally be described as follows:

- "New urbanism" or traditional neighborhood development: Refers to creating pedestrian- friendly walkable neighborhoods radiating away from the train station on an interconnected street grid that includes a mix of development (shops, offices, housing, etc.).
- Transit-oriented development (TOD): Refers to higher density, mixed-use, compact development (generally in major cities) that is oriented around rail/transit stations.

The focus of these developments can be city centers, older suburbs, and new town developments.

The resulting land use resembles a traditional downtown with mixed-use development featuring a central core of denser development (offices, retail, multi-family housing), radiating out to lower density development with an integrated mobility system and a more pedestrian-friendly environment.

Passenger rail stations can provide major opportunities for this focused growth, especially in urban areas or new towns. These stations can function as local connection points for other feeder modes and create transportation hubs for the community. This pedestrian-friendly development pattern enables a higher number of trips to be made by transit and walking, reducing gasoline consumption and air pollution.

Higher density, walkable cityscapes with improved transit links serve to greatly benefit passenger rail ridership and make expanded rail networks more feasible.

Texas' commuter and light rail agencies have capitalized on TOD opportunities that have attracted ridership and prompted the construction of new stations. DART has been a national leader in the advancement of TOD, with more than $17 billion invested in existing and planned live-work-play communities at current and future station sites.[95] New TOD stations have opened or are under construction along the Trinity Railway Express and CapMetro Rail Red Line commuter rail systems.

Rail Capacity Needs for New Passenger Services

A critical factor in all the above considerations is the limited availability of rail line capacity on existing host freight and commuter rail lines to accommodate new or increased passenger rail services. Rail line capacity is also an underlying cause of the slow average speeds and unreliable nature of current intercity passenger rail service. These slow average speeds, for the most part, are not caused by poor track conditions or restricted alignments, but are a reflection of a capacity constrained network with frequent meet delays and delays owing to train congestion, as freight rail volumes in Texas have continued to grow. Additional rail line capacity will need to be constructed, both for the growing rail freight market as well as for any additional passenger rail services. Heavily used highway-rail grade crossings will need to be replaced with roadway overpasses or underpasses to create safer, more reliable, and fluid rail and roadway networks and also enable railroad carriers to operate without the concern of blocking highway crossings.

95 DART Reference Book, 2024

Texas Department of Transportation™

2024 Texas Rail Plan

Chapter 3

Potential Passenger Rail Improvements and Investments

February 2025

Contents

Chapter 3: Introduction 4

Planning Passenger Rail Investments 6

Framework for Passenger Rail Planning 6

Federal Corridor Identification and Development Program 6

FRA Long-Distance Service Study 10

Statewide Planning Framework 11

Potential Improvements to Existing Amtrak Service 14

Heartland Flyer Improvement Concepts 14

Sunset Limited Service Improvement Concepts 17

San Antonio Amtrak Improvements 19

Amtrak Five Year Strategic Plans 20

Amtrak Texas and Oklahoma Rail Improvements 23

Amtrak Station Improvements 24

Thruway Bus Service 26

Proposed Passenger Rail Project: Dallas to Houston High-Speed Rail Project 26

Project Overview 26

Environmental Documentation 27

Safety Regulation Framework 28

Proposed Route and Service 28

Project Partners 30

Potential Implementation Timeline 31

Potential Ridership and Revenue 32

Projected Capital Costs, Subsidies, and Financing Strategies 33

Analysis of Interconnectivity of Proposed New Passenger Rail System 34

Analysis of Short-Term and Long-Term Effects of Proposed Passenger Rail System on State and Local Road Connectivity 36

Analysis of the Effect of the Proposed Passenger Rail System on Statewide Transportation Planning 37

Detailed Ridership Projections for the Proposed Passenger Rail System Developed in Previous TxDOT Studies 38

Ridership Statistics for Existing Passenger Rail System in the State 39

Potential New Intercity Passenger Routes and Services 40

Texas Triangle Intercity Passenger Rail Corridors 40

Texas-Oklahoma Passenger Rail Study 44

Dallas to Fort Worth High-Speed Rail Studies 48

Dallas-Fort Worth to Meridian 55

Fort Worth to Laredo High-Speed Transportation Study 59

Austin to Houston...60

Infrastructure Considerations for New and Expanded Passenger Services 62

Potential Improvements to Existing Commuter Services 62

Trinity Railway Express Initiatives..62

Denton County Transportation Authority Initiatives 66

TEXRail Initiatives 69

Austin Commuter Rail Initiatives 70

Potential New Commuter Rail Routes and Services... 75

DART Silver Line 76

Potential Dallas/Fort Worth Regional Rail Corridors 79

Houston-Galveston Commuter Rail Initiatives 91

Hidalgo County 97

Future Tasks 99

Figures

Figure 3-1: Passenger Corridors Receiving FRA Corridor ID Program Development Funds 9

Figure 3-2: Preferred Routes Identified in Long-Distance Service Study 11

Figure 3-3: Project Concepts for San Antonio Amtrak Improvements 19

Figure 3-4: Preferred Build Alternative Route of the Texas Bullet Train 29

Figure 3-5: Potential DFW – Houston Corridor 41

Figure 3-6: Potential Houston – San Antonio Corridor 42

Figure 3-7: Potential DFW – San Antonio Corridor 43

Figure 3-8: Texas-Oklahoma Passenger Rail Study Corridor 46

Figure 3-9: Corridors Evaluated in the Dallas-Fort Worth Core Express Alternatives Analysis 49

Figure 3-10: NCTCOG Developed Alternative Alignments..50

Figure 3-11: Concept for Potential Fort Worth High-Speed Rail Station...52

Figure 3-12: Final Recommended Arlington High-Speed Rail Station Locations................................53

Figure 3-13: Preferred Alignment of Dallas-Fort Worth High-Speed Study 54

Figure 3-14: Potential Alternate High-Speed Rail Alignment West of Downtown Dallas 55
Figure 3-15: Project Corridor Between Fort Worth, Texas and Meridian, Mississippi..........................56
Figure 3-16: Project Corridor between Dallas-Fort Worth and Meridian plus Existing Amtrak Routes ..57
Figure 3-17: Texas-Louisiana Corridor Study Area 59
Figure 3-18: Austin to Houston Passenger Rail Study Alternatives 61
Figure 3-19: TRE Bridge over Inwood Road 63
Figure 3-20: Potential DCTA Rail Extension in Denton and Collin Counties 68
Figure 3-21: Existing TEXRail System and Planned Southwest Extension.......................................70
Figure 3-22: Austin's Proposed MetroRail Green Line 72
Figure 3-23: Cotton Belt Corridor Regional Rail Map 77
Figure 3-24: DART Silver Line DMU Train 78
Figure 3-25: DART High-Capacity Corridor Evaluation 79
Figure 3-26: Mobility 2045 Update Major Transit Corridor Projects...81
Figure 3-27: Projected 2045 Ridership on Recommended DFW-Area Transit Corridors......................83
Figure 3-28: Mobility 2045 Update High-Speed Rail Recommendations 84
Figure 3-29: Proposed Frisco Regional Rail Corridor...86
Figure 3-30: Proposed McKinney Rail Corridor 88
Figure 3-31: Proposed Waxahachie Rail Corridor 90
Figure 3-32: Potential Houston Commuter Rail Corridors from 2008 H-GAC Study...........................91
Figure 3-33: Houston Commuter Rail Lines Recommended by H-GAC in 2045 RTP 93
Figure 3-34: Proposed 90A Rail Line and other METRORail Expansions..95
Figure 3-35: Proposed Galveston Commuter Rail Line..96
Figure 3-36: Proposed Hidalgo County Commuter Rail System...98

Tables

Table 3-1: Texas Eagle/Sunset Limited Restructuring Metrics 18
Table 3-2: Proposed Amtrak Station Improvements 25
Table 3-3: Capital Cost Estimate for the Proposed Texas Bullet Train..34
Table 3-4: Summary of Transportation Impacts of HSR Preferred Build Alternative (Alternative A).....37
Table 3-5: Mode Split Assumptions for Terminal Stations..38
Table 3-6: Forecasted 2035 Dallas-Houston Intercity Passenger Rail Ridership Summary Results 39
Table 3-7: Amtrak Riders on Routes Serving Texas FY 2019-2023 39
Table 3-8: Potential Dallas/Fort Worth – Houston Corridor Service Characteristics 42
Table 3-9: Potential Houston – San Antonio Corridor Service Characteristics..................................43
Table 3-10: Potential Dallas/Fort Worth – San Antonio Corridor Service Characteristics 44
Table 3-11: North Texas Regional Rail Corridors Recommended in Mobility 2045 Update 82
Table 3-12: Frisco Line Cost Estimates...87

Chapter 3: Introduction

This chapter describes ongoing, proposed, and potential initiatives to develop or expand high-speed rail, intercity passenger rail, and commuter rail services in the state. As discussed in Chapter 2, those services are categorized as follows:

- *High-speed rail* is defined as rail operating at speeds of 125 mph or above, with limited stops or no stops between cities, and operating on a grade-separated, dedicated right of way.
- *Intercity passenger rail* is defined as rail serving multiple cities on routes with longer distances (typically 100 miles or more) and more frequent stops, and operating on tracks that are part of the existing national railroad network at conventional passenger train speeds.
- *Commuter rail* is defined as rail primarily serving work commuters and local travelers between communities in an urban area or metropolitan region, on routes with frequent stops, and typically operating on tracks that are part of the existing national railroad network.

No high-speed rail services are currently in operation in Texas, but one project is proposed, the Dallas to Houston High-Speed Rail Project.

Intercity rail passenger service in Texas is provided by three Amtrak routes. One route, the *Heartland Flyer* between Fort Worth and Oklahoma, is a state-supported passenger train operated by Amtrak under contract to Texas and

Oklahoma. Both states provide annual contributions to fund the operation of the single daily round-trip service, as required under the Passenger Rail Investment and Improvement Act (PRIIA) of 2008 for passenger trains on routes of 750 miles or less. The schedule is timed to allow for transfers at Fort Worth to Amtrak's *Texas Eagle* train in each direction. The other two Amtrak routes, the *Texas Eagle* and *Sunset Limited*, are part of Amtrak's long-distance service network. The *Texas Eagle* operates daily in each direction between Chicago, Illinois, and San Antonio, Texas, serving twelve stations in Texas. At San Antonio, the service connects to the *Sunset Limited* for continued service to Los Angeles, California. Amtrak's *Sunset Limited* operates three days per week in each direction between New Orleans, Louisiana, and Los Angeles, California, serving seven Texas stations. This chapter discusses potential changes to existing intercity passenger rail services in Texas that have been studied or considered by Amtrak in recent years.

This chapter has been prepared in accordance with FRA state rail plan guidance, as well as provisions in Texas Senate Bill (SB) 312 that require descriptions of existing and proposed passenger rail systems in Texas and information regarding the status of passenger rail systems under construction.

As the 2024 Texas Rail Plan was being prepared, only one new passenger rail system had been proposed in Texas: the Dallas to Houston High-Speed Rail Project, also known as the Texas Bullet Train, a private-sector initiative undertaken by Texas Central Partners (Texas Central), with additional federal support provided by Amtrak. This chapter includes a comprehensive discussion of the Texas Bullet Train that provides the latest information about this project, including an analysis of potential interconnectivity difficulties, an analysis of short-term and long-term effects on state and local road connectivity, an analysis of the effect on statewide transportation planning, and ridership projections, in accordance with SB 312.

Detailed ridership statistics for existing passenger rail systems were presented in Chapter 2. No proposed passenger rail systems are currently under construction in Texas.

Additional intercity passenger rail services in Texas are about to be studied for their potential feasibility, under a multi-year effort beginning in 2024 that will be led by various public sector corridor study sponsors, including TxDOT, Amtrak, the North Central Texas Council of Governments (NCTCOG), and the Southern Rail Commission (SRC). The funding for these studies will be provided primarily by FRA through the Corridor Identification and Development Program, a new federal passenger rail development program created by the Infrastructure Investment and Jobs Act (IIJA). The following corridors and corridor sponsors were awarded funds to carry out planning studies under FRA's Corridor ID Program:

- Texas Triangle: Dallas-Fort Worth to Houston Intercity Passenger Rail Corridor (TxDOT)
- Texas Triangle: Houston to San Antonio Corridor (TxDOT)
- Heartland Flyer Extension (Kansas Department of Transportation)
- I-20 Corridor Intercity Passenger Rail Service (SRC)
- Daily Sunset Limited Service (Amtrak)
- Amtrak Texas High-Speed Rail Corridor (Amtrak)
- Fort Worth to Houston High-Speed Rail Corridor (NCTCOG)

The corridor studies to be carried out under this program are summarized in the following section of the chapter on federal passenger rail planning and are also discussed individually in a section of Chapter 3 entitled "Potential New Intercity Passenger Routes and Services."

Using federal funding made available between 2009 and 2011 by the High-Speed Intercity Passenger Rail (HSIPR) program, a discretionary grant program created by PRIIA, TxDOT has conducted passenger route alternative studies, service development plans, and related federal environmental requirements toward expanding intercity passenger rail operations in the state and region. These activities are also discussed in "Potential New Intercity Passenger Routes and Services."

Three distinct commuter rail operations serve the Dallas-Fort Worth region, and a fourth commuter rail operation serves the city of Austin. Commuter rail services in Texas are operated by local transit authorities, on rail lines owned either by freight railroads or by transit agencies. However, other entities may also initiate and operate commuter rail. This chapter summarizes planned improvements to existing commuter rail services in Texas, as well as potential new commuter rail services under consideration.

TxDOT's ability to directly impact specific passenger rail service levels, train frequencies, or train schedules is limited, as discussed in Chapter 2. TxDOT does not have a dedicated funding source for passenger rail projects. Funding for support of existing passenger rail services or for additional services must be approved by the Texas Legislature. Overall, however, TxDOT is committed to implementing rail-related state policies, and supports the development of modal transportation options.

Planning Passenger Rail Investments

Framework for Passenger Rail Planning

The National High Speed Intercity Passenger Rail Strategic (HSIRP) Plan published by the U.S. Department of Transportation and FRA in 2009 contained strategy, definitions, and guidelines for the development of passenger rail corridors across the United States. The plan proposed investing in infrastructure, equipment, and multimodal connections to lay the foundation for an efficient high-speed passenger rail network of corridors 100 to 600 miles in length.

Given the strong population and economic growth in Texas, ideas for developing higher and high- speed rail have been considered in recent decades to provide the additional mobility and transportation capacity needed to accommodate future population growth in the state. In 1989, the Texas Legislature created the Texas High-Speed Rail Authority (THSRA) as a separate state agency to determine whether high-speed rail in Texas was feasible. THSRA was to determine the best-qualified applicant for award of a franchise to design, build, and operate a high-speed rail service in the state. THSRA awarded a franchise to the Texas TGV Corporation, but the company was unable to secure financial backing. The THSRA subsequently was abolished in 1995. Since that time, five additional proposals and studies targeted at key segments of what's known as the Texas Triangle (linking Austin, Dallas/Fort Worth, Houston, and San Antonio) have been authored. More recently, the Infrastructure Investment and Jobs Act (IIJA), which was signed into law in 2021, created new federal programs and funding streams to continue the planning and development of high-speed, higher-speed, and conventional intercity passenger rail routes and services.

Federal Corridor Identification and Development Program

The Corridor Identification and Development (Corridor ID) Program is a comprehensive intercity passenger rail planning and development program designed to help guide passenger rail development across the nation and create a

pipeline of intercity passenger rail projects ready for implementation. The IIJA authorized the Secretary of Transportation to establish the program to facilitate the development of intercity passenger rail corridors, and FRA was delegated the authority to create and administer the program. The Corridor ID Program is intended to become the primary means for directing Federal financial support and technical assistance toward the development of proposals for new or improved intercity passenger rail services throughout the United States. Public entities seeking to create or expand intercity passenger rail routes are eligible to apply for funding from the program. A passenger corridor that is accepted into the program will advance through a three-step development process that includes:

- Step 1 – Scoping: Sponsor develops the scope, schedule, and budget to prepare a Corridor Service Development Plan (see Step 2), accounting for work on-going and/or undertaken to date. FRA will fund 100% of the costs for Step 1 activities, up to $500,000.
- Step 2 – Service Development Plan Preparation: Sponsor prepares a service development plan (SDP) in accordance with the scope, schedule, and budget developed in Step 1 and in coordination with FRA. The SDP will determine and document how the Corridor will be implemented. The Final SDP will include a Capital Project Inventory as part of the Phased Implementation Plan. FRA will fund 90% of the costs for Step 2 activities.
- Step 3 – Preliminary Engineering/NEPA: In coordination with FRA, sponsor completes preliminary engineering and a National Environmental Policy Act (NEPA) environmental review for capital projects identified in the SDP (Step 2). Corridors that complete Step 3 will move into the Corridor ID capital project pipeline and may be prioritized for Final Design and Construction funding under the Federal-State Partnership Program or other FRA financial assistance programs. FRA will fund 80% of the costs for Step 3 activities.

In December 2023, FRA announced its initial selection of corridors into the program for Fiscal Years 2022-2023. FRA selected 69 corridors across 44 states, with the goal of upgrading 15 existing rail routes, adding or extending service on 47 new routes, and advancing seven new high-speed rail projects.[1] TxDOT was among the public agencies with future passenger rail corridors that were accepted into the program. Each selected corridor was awarded up to $500,000 for the completion of Step 1 activities. Several of the initial corridors that were selected for the program either pass through Texas or benefit trains that serve Texas. These include the following:

- **Texas Triangle: Dallas-Fort Worth-Houston Intercity Passenger Rail Corridor**, sponsored by TxDOT. This corridor would connect Fort Worth, Dallas, and Houston, Texas, with a new conventional intercity passenger rail service over an existing alignment over which Amtrak discontinued service (between Dallas and Houston) in 1995. The corridor would have additional station stops in Corsicana, Hearne, College Station, and Navasota. TxDOT will enter Step 1 of the program to develop a scope, schedule, and cost estimate for preparing, completing, or documenting a service development plan.
- **Texas Triangle: Houston to San Antonio Corridor**, sponsored by TxDOT. This corridor would connect Houston and San Antonio, Texas, with a new conventional intercity passenger rail service using the route of Amtrak's existing long-distance *Sunset Limited* service. The corridor would have additional station stops in Rosenberg, Flatonia, and Seguin. TxDOT will enter Step 1 of the program to develop a scope, schedule, and cost estimate for preparing, completing, or documenting a service development plan.
- **Heartland Flyer Extension**, sponsored by Kansas Department of Transportation (KDOT). This corridor would connect the existing *Heartland Flyer* intercity passenger rail service between Fort Worth, Texas, and Oklahoma City, Oklahoma, which is funded by the states of Texas and Oklahoma, with an extension north to Wichita and

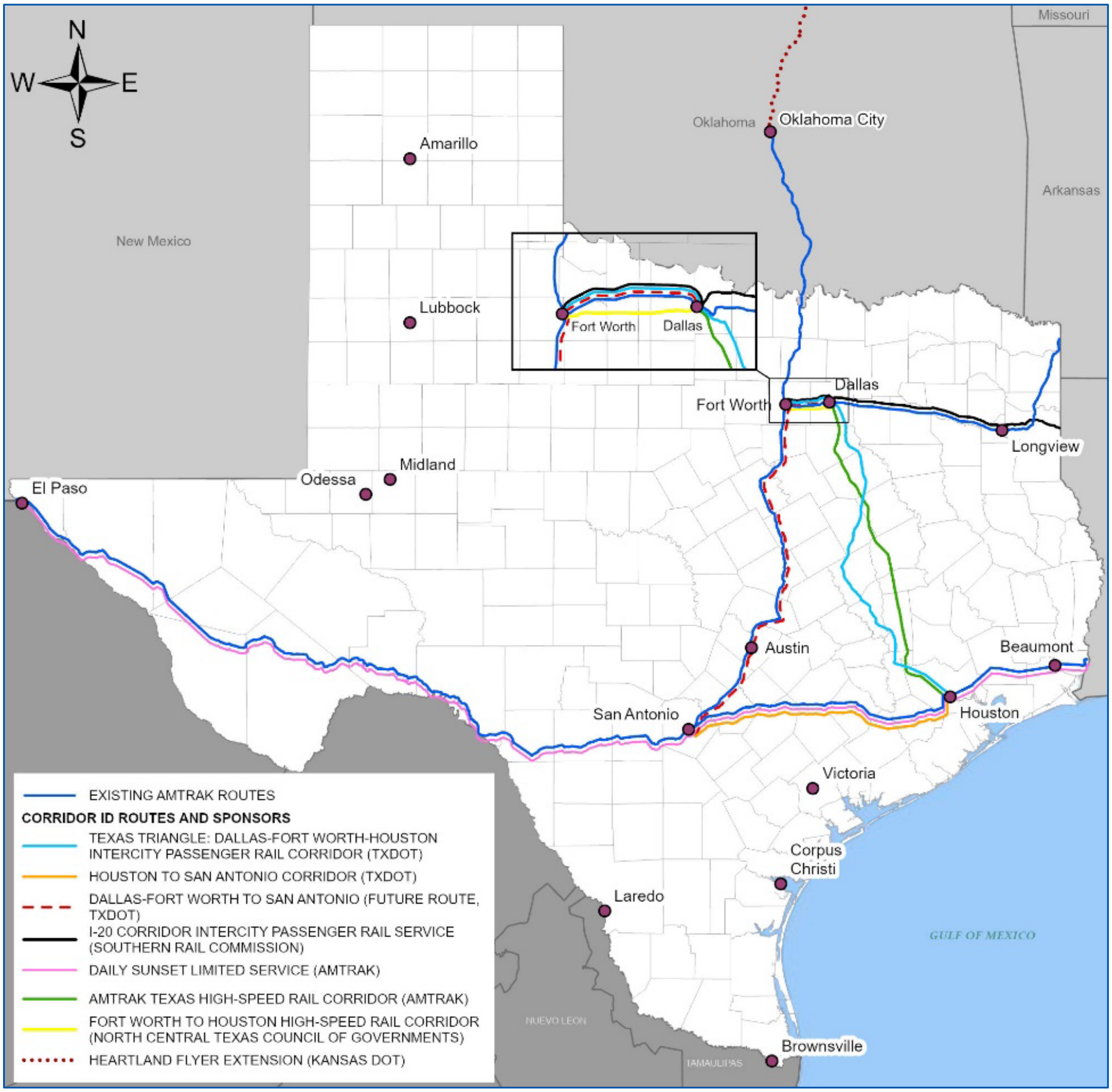
1 Retrieved from: https://railroads.dot.gov/sites/fra.dot.gov/files/2023-12/FRA%2013-23.pdf. Retrieved in October 2024.

then Newton, KS, where it would connect with Amtrak's Chicago-Los Angeles *Southwest Chief* long-distance route. The corridor would include new station stops in Edmond, Perry, and Ponca City, Oklahoma, and Arkansas City, Wichita, and Newton, Kansas. KDOT will enter Step 1 of the program to develop a scope, schedule, and cost estimate for preparing, completing, or documenting a service development plan. The states of Kansas and Oklahoma have been working with Amtrak since 2010 on initiatives to extend the *Heartland Flyer* north to Newton, as described in the following section of Chapter 3.

- **Daily Sunset Limited Service**, sponsored by Amtrak. This corridor would improve the existing Amtrak long-distance *Sunset Limited* service between Los Angeles, California, and New Orleans, Louisiana, by increasing service frequency from thrice weekly to daily. Intermediate cities served include Houston, San Antonio, and El Paso, Texas, and Tucson, Arizona. Amtrak will would enter Step 1 of the program to develop a scope, schedule, and cost estimate for preparing, completing, or documenting a service development plan. Expanding the operation of the *Sunset Limited* to daily has been a long-desired service goal since at least 2010, when Amtrak released a feasibility study on the potential service increase, as described in the following section of Chapter 3.
- **I-20 Corridor Intercity Passenger Rail Service**, sponsored by the Southern Rail Commission (SRC). This corridor would connect Dallas, Texas, to Meridian, Mississippi, and would serve the following cities in Texas: Fort Worth, Mineola, Longview, and Marshall; the following cities in Louisiana: Shreveport, Ruston, and Monroe; and the following cities in Mississippi: Vicksburg and Jackson. The corridor would provide new service on existing alignments. SRC will Step 1 of the program to develop a scope, schedule, and cost estimate for preparing, completing, or documenting a service development plan. The proposed corridor to be studied has completed prior feasibility studies funded by FRA. Additionally, FRA anticipates including portions of the proposed corridor within the ongoing Amtrak Long-Distance Study (described below).
- **Amtrak Texas High-Speed Rail Corridor**, sponsored by Amtrak. In partnership with Texas Central, Amtrak will study the proposed corridor that would connect Dallas and Houston, Texas, with a new, dedicated and grade-separated high-speed passenger rail service. The corridor would provide new service on a new alignment, with station stops in Dallas, Brazos Valley, and Houston. Amtrak will enter Step 1 of the program to develop a scope, schedule, and cost estimate for preparing, completing, or documenting a service development plan. This study will build on the Final Environmental Impact Statement and Record of Decision released by FRA in 2020 for the Dallas to Houston High-Speed Rail Project. This project is described in detail later in Chapter 3.
- **Fort Worth to Houston High-Speed Rail Corridor**, sponsored by NCTCOG, the metropolitan planning organization (MPO) for the Dallas-Fort Worth Region. This corridor would connect Fort Worth and Dallas, Texas, with a new high-speed passenger rail service that would provide a continuation to Fort Worth for the proposed Dallas to Houston High-Speed Rail project. The corridor would provide new service on a new alignment, with station stops in Fort Worth, Arlington, Dallas, Brazos Valley, and Houston. The corridor sponsor would enter Step 1 of the program to develop a s scope, schedule, and cost estimate for preparing, completing, or documenting a service development plan. This study will build on previous work that NCTCOG has undertaken with FRA to develop a high-speed rail alignment between Dallas and Fort Worth.

Figure 3-1 shows the routes that are slated to receive funding for planning and development from FRA in the Corridor ID Program. FRA intends to select a second group of corridors for development under the program in 2025. When the call for applications is released, TxDOT intends to submit an application for the Dallas-Fort Worth to San Antonio corridor, the third corridor in the Texas Triangle. This route is also shown in Figure 3-1.

Figure 3-1: Passenger Corridors Receiving FRA Corridor ID Program Development Funds



Source: TxDOT

Although there are some long-distance train routes and potential future high-speed rail routes that have been selected for Corridor ID funding, the majority of the services that could be developed under the program are new conventional-style passenger rail corridors or extensions of existing passenger rail corridors on routes of 750 miles or less. Under the terms of PRIIA, states (or groups of states) are responsible for funding the costs of Amtrak trains that operate on routes of 750 miles or less. Any future effort that results in the introduction of an Amtrak service in Texas on a route of 750 miles or less will require a state, regional, or local entity to provide public money to support the operation, either on its own or through a partnership of agencies.

FRA Long-Distance Service Study

Section 22214 of the IIJA required FRA, under delegation from the Secretary of Transportation, to conduct an Amtrak Daily Long-Distance Service Study to evaluate the restoration of daily intercity passenger rail service and the potential for new Amtrak long-distance routes.

Long-distance routes are Amtrak routes over 750 miles that connect a mix of urban and rural areas; these routes typically operate one trip per day in each direction, and Amtrak receives annual support from Congress for operating costs associated with long-distance routes. FRA's Amtrak Daily Long-Distance Service Study[2] was intended to create a foundation for further planning of potential future long-distance services. Under the IIJA, FRA was required to conduct a study to assess the restoration of daily intercity rail passenger service along any Amtrak long-distance routes that were discontinued, as well as any Amtrak long-distance routes with nondaily service. FRA could also assess potential new Amtrak long-distance routes in its evaluation, taking into consideration whether those new routes would:

- Link and serve large and small communities as part of a regional rail network
- Advance the economic and social well-being of rural areas of the United States
- Provide enhanced connectivity for the national long-distance passenger rail system
- Reflect public engagement and local and regional support for restored passenger rail service

FRA conducted the study between 2022 and 2024, completing the required analyses and conducting 24 regional working group meetings with stakeholders in 21 cities across the country. FRA solicited comments and study participation from state DOTs, Amtrak, Class I freight railroads, short line railroads, metropolitan planning organizations, regional passenger rail authorities, local officials, federally recognized tribes, and the public. The final report was released in January 2025,[3] and included a network of "selected preferred route options" for future planning and development. The selected route options are not FRA proposals for service, and are not intended to restrict or preclude future plans or planning activities. Among the 15 long-distance routes identified as "selected preferred route options," nine pass through Texas. These routes are:

- Dallas/Fort Worth – Miami (via Marshall and New Orleans)
- Denver – Houston (via Amarillo and Dallas/Fort Worth)
- Phoenix – Minneapolis/St. Paul (via Amarillo)
- Dallas/Fort Worth – New York (via Oklahoma City and St. Louis)
- Houston – New York (via New Orleans and Atlanta)
- San Antonio – Minneapolis/St. Paul (via Dallas/Fort Worth, Tulsa, and Kansas City)
- San Francisco – Dallas/Fort Worth (via Tucson, El Paso, and Midland)
- Dallas/Fort Worth – Atlanta (via Marshall, Meridian, and Birmingham)
- El Paso – Billings (via Albuquerque and Denver)

Figure 3-2 shows a map of the study's proposed network of selected preferred long-distance train route options serving Texas and other U.S. states. The Dallas/Fort Worth region was identified as a potential hub for future long-distance services, as six preferred routes would originate/terminate or pass through the Metroplex, supplementing the existing service provided by Amtrak's *Texas Eagle* and *Heartland Flyer* routes.

2 Retrieved from: https://fralongdistancerailstudy.org/. Retrieved in October 2024.

3 Amtrak Long-Distance Service Study Final Report to Congress. Retrieved from: https://fralongdistancerailstudy.org/wp-content/uploads/2025/01/Amtrak-Daily-Long-Distance-Service-Study-%E2%80%93-Final-Report-2025.pdf. Retrieved January 2025.

Figure 3-2: Preferred Routes Identified in Long-Distance Service Study

Source: Federal Railroad Administration

The development and implementation of any of the study's preferred long-distance routes will require significant additional time, resources, and analysis to further identify and refine infrastructure improvements, equipment needs and other capital projects, as well as costs, funding sources, and other key items needed for implementation. Currently, there is no financial support to further advance the preferred route options identified in FRA's Amtrak Daily Long-Distance Service Study.

Statewide Planning Framework

The expansion of intercity passenger and commuter rail systems in Texas supports goals and objectives outlined in other recent statewide transportation plans produced by TxDOT.

Connecting Texas 2050

Connecting Texas 2050 is the statewide long-range transportation plan.[4] The plan, which was released in July 2024, establishes the vision, objectives, performance measures, and strategic recommendations for Texas' multimodal transportation system through 2050. It integrates numerous planning efforts conducted by TxDOT and its partners and serves as the cornerstone transportation planning document for the agency. The plan is centered around six long-

4 Connecting Texas 2050. Retrieved from: https://www.txdot.gov/content/dam/docs/projects/slrtp/connecting-texas-2050-slrtp-508c.pdf. Retrieved January 2025.

range transportation goals to reflect priorities and address needs across the state between now and 2050: safety, preservation, mobility, connectivity, economic vitality, and stewardship. The plan concludes with recommended strategies, which are grouped into eight themes that reflect federal planning requirements such as safety and preservation, and which align with the statewide transportation goals presented in the plan. The plan recognizes that many of the recommendations cannot be implemented without collaboration and partnerships with other entities, including TxDOT, other state agencies, federal partners, MPOs, transit authorities, regional mobility authorities, localities, and the private sector.

Among the recommended strategies identified in the plan that supports the expansion of commuter rail is "optimize investment in the multimodal transportation system to accommodate future growth." This strategy includes recommendations to increase the flexibility of state funding for multimodal passenger and freight transportation systems and services, and explore new and innovative financing mechanisms to fund the expansion, maintenance, and improvements of multimodal and digital infrastructure. Collaboration with partner agencies to maximize the use of discretionary grant opportunities for high-priority multimodal projects is another recommendation. Finally, the plan also recommends identifying and exploring options to support the expansion of intercity passenger rail and bus operations through partnerships.

Texas Statewide Multimodal Transit Plan

As the State Rail Plan was being written, TxDOT was also preparing a Statewide Multimodal Transit Plan (SMTP) to help the department and its partners plan for the movement of people in a comprehensive, coordinated, multimodal transportation system. The SMTP will align with the State Rail Plan other statewide planning efforts, such as Connecting Texas 2050, in aiming to identify actions necessary to increase mobility and connectivity, account for anticipated population and economic growth, and address congestion through 2050. The plan will include strategies to support the following vision for transit in Texas: A safe, universally accessible, and integrated network of transit mobility options that connects people seamlessly, both locally and across the state, supporting an improved quality of life and a resilient and vibrant economy by 2050 and beyond.[5]

The final plan will be released in 2025, but a draft plan was prepared by TxDOT in the fall of 2024. It states that Texas must meet the needs of a historic population boom and employment growth by developing new infrastructure, adopting new technologies, and deploying new services, all while maintaining existing infrastructure and services and the state's quality of life. Although transit plays a small role in meeting Texans' transportation needs today, it must evolve to meet the needs of a growing, aging, urbanizing population spread across 265,000 square miles. Based on consultations with transit operators, business leaders, and local governments, the Texas SMTP 2050 offers six practical strategies to achieve the vision for the future of transit in Texas.

Create an integrated, intercity, statewide network of public transportation options to provide seamless travel connections. Intercity connectivity is crucial, and traveling without a car must be as straightforward as possible for those who choose or rely on transit. Developing a universal transit app will allow seamless integration of multimodal hubs, scheduled connections and intrastate routes. A plan is needed to look at options for how to manage these service integrations and review current laws to ensure they have the needed organizational structure and governance.

5 https://ftp.txdot.gov/pub/txdot/get-involved/statewide/smtp/100124-fact-sheet.pdf.

Specific objectives identified in the draft plan for improving connectivity include:

- **Establish Higher Capacity and Quality Service Connections Between Regional Centers**. Connectivity between rural, urban, and metropolitan areas needs to be paired with the appropriate capacity and level of service to meet ridership needs. These connections should be reliable and provide high service quality. Connections should capitalize on existing rail and road infrastructure prior to intensive expansion.
- **Connecting the Customer to Mobility Options Through Technology**. Technology can be used to make connections between modes and services more convenient and seamless. Examples of technology are universal trip planning and payment, integrated scheduling to align transfers, and real time information to help passengers make connections and transfers.

Specific recommendations identified in the draft plan where rail could play a role to improve connectivity include:

- Connect rural, urban, and metropolitan areas by investing in long-distance intercity transit. To accomplish this, use bus and passenger rail service that is scaled to meet all-day travel demands between key destinations.
- Support options for new governance structures and expanded funding capacity to address growth trends and support intercity transit.
- Identify locations and support development of multimodal hubs that foster connections between local, regional, and intercity services and improve mobility across transit systems.

Optimize and expand investment in the multimodal transit system to sustain current programs and increase transit opportunities across the state. Current funding supports metropolitan transit authorities, but rural and urban transit districts struggle to maintain existing services and a state of good repair due to limited local government resources. Additional funding for transit agencies will provide access to transit for all Texans through an expanded network statewide.

Use transit to optimize the state transportation system. In circumstances where transit can move more people more efficiently (for example, via dedicated right-of-way in congested areas), these opportunities should be studied and considered for multi-modal projects to increase throughput, support growth, and provide travel options.

Build on and enhance current programs to create a safer and more resilient transit system. The Texas SMTP 2050 aims to build a safer, more resilient transit system by integrating transit with roadways and active transportation systems while leveraging cutting-edge technology and universal design standards. The approaches include improving safety, supporting the #EndTheStreakTX campaign, and prioritizing workforce development through recruitment, retention, and training. Enhanced coordination with emergency response and safe first- and last-mile connections will ensure a more effective and dynamic transit network.

Establish partnerships and support collaborative planning processes to address evolving transit challenges. Common data, integration with local land use and economic development plans (including transit planning in all transportation projects), and more coordinated transit planning can improve how transit is deployed across the state. Additionally, there are many opportunities for collaborative efforts to streamline processes, share cost burdens, implement new technology, and create joint procurements to help support current operations and achieve the Texas transit vision.

Tell the story of transit as a vital mobility solution and economic asset for Texas. Transit offers benefits beyond commuting and essential services – it eases roadway congestion, expands workforce access, supports rural

communities, and creates independence and opportunity for those who cannot drive. Increasing public education about transit's value, utilizing Texas-specific research and performance metrics, and highlighting local transit champions will help convey the story of transit in Texas as a vital component of mobility and a key economic resource.

Potential Improvements to Existing Amtrak Service

Amtrak's current intercity passenger rail service in Texas is limited in its reach (number of routes), frequency (number of departures), and travel time (with trains on overnight schedules between Houston, San Antonio, and El Paso). Amtrak continues to conduct internal studies and work with TxDOT and surrounding states on ideas for possible improvements to its state-supported and long-distance services in Texas. This section identifies some potential concepts considered by Amtrak and TxDOT in recent years to improve existing Amtrak services in Texas.

Heartland Flyer Improvement Concepts

Potential Service Improvements

As the financial sponsors of Amtrak's *Heartland Flyer*, TxDOT and the Oklahoma Department of Transportation (ODOT) will work with Amtrak as needed on ways to improve the train's service offerings and cost-efficiency. Some of the recent initiatives identified by Amtrak as part of this effort have included:

1. **Implementing a Second Round Trip at Minimal Cost:** Amtrak has studied the feasibility of operating a second round trip between Fort Worth and Oklahoma City by creating a section of the long-distance *Texas Eagle* that could be combined and separated at Fort Worth. The *Heartland Flyer* train would then be rescheduled to provide an opposite-direction morning and evening trip with the new *Texas Eagle* Oklahoma City section, thus allowing for daily morning and evening departures from each end of the corridor.
2. **Lower Cost Equipment Options:** Amtrak has evaluated the possibility of furnishing lower-cost equipment for the *Heartland Flyer* service than the current bilevel Superliner equipment in use. Other ideas include potentially eliminating the cab-baggage car at the opposite end of the trainset from the locomotive, although this would require turning the trainset around between trips at both Fort Worth and Oklahoma City.
3. **Wi-Fi Installation:** The installation of wireless internet access onboard passenger rail cars has proven to be a popular and widely used customer service feature on Amtrak's routes in the northeast United States. Wi-Fi provides many passengers, not just business passengers, with the ability to be productive or just to be "connected." Installing Wi-Fi on board the *Heartland Flyer* could help enhance onboard amenities and improve the customer experience for travelers.

Heartland Flyer Extension

The Kansas Department of Transportation (KDOT) has received FRA funding through the Corridor ID Program to complete the service development planning, National Environmental Policy Act (NEPA) evaluations, and preliminary engineering for an extension of the Fort Worth-Oklahoma City *Heartland Flyer* north to Newton, KS. The project would improve multimodal transportation options along the I-35 corridor in south-central Kansas, with proposed stops in Wichita and Arkansas City. At Newton, *Heartland Flyer* passengers could make a cross-platform connection to Amtrak's daily Chicago-Kansas City-Newton-Los Angeles *Southwest Chief* train.

As part of the planning effort, KDOT is in the process of updating a Service Development Plan (SDP) that it had initially prepared with ODOT in 2011 for the Kansas City-Oklahoma City-Fort Worth corridor. The goal of the planning effort is to (1) update and expand upon the 2011 SDP, (2) provide a fresh look into the feasibility of the potential extension of the *Heartland Flyer* from Oklahoma City to Newton, and (3) provide the project partners a roadmap for implementation, should funding be made available.[6] The updated study will identify all costs associated with implementation and develop a detailed plan for deploying and operating the service. In a fact sheet on the project dated Winter 2024, KDOT stated that the extension is expected to be operational in 2029 depending upon funding availability.[7]

Even before the current work of updating the 2011 SDP had begun, Amtrak operated an inspection train from Oklahoma City to Kansas City on June 9, 2017, during which officials discussed the feasibility of reinstating regularly scheduled passenger rail service between the two cities. (Amtrak had provided passenger rail service between Fort Worth, Oklahoma City, and Kansas City until 1979.) The inspection train operated on tracks owned by BNSF Railway, which also owns the tracks used by the current *Heartland Flyer* service between Fort Worth and Oklahoma City. The inspection train was a preliminary step in the feasibility assessment process to evaluate service options and costs for reinstating passenger rail service. On February 10, 2021, Amtrak presented a proposal for the state of Kansas at the 2021 Passenger Rail Coalition Forum to request 100% federal funding for the *Heartland Flyer* extension capital costs, and three to five years of operational costs through reauthorization of the Surface Transportation Act. Soon after, the Oklahoma Senate and House of Representatives passed a concurrent resolution on April 26, 2021, endorsing the extension of Amtrak *Heartland Flyer* service to Newton and a multistate partnership between Amtrak, Oklahoma, and Kansas.[8]

Conclusions from the 2011 Kansas City-Fort Worth Service Development Plan

The current effort to extend the *Heartland Flyer* to Newton builds on the findings from the previous SDP jointly prepared by the states of Oklahoma and Kansas in 2011 for the Kansas City-Oklahoma City-Fort Worth corridor.[9] The study also evaluated the costs and feasibility of developing a new daytime Kansas City-Oklahoma City-Fort Worth train, either separately or in conjunction with a *Heartland Flyer* extension. Both service options had been recommended in an earlier feasibility study conducted by Amtrak in 2010[10] that was jointly paid for by Oklahoma and Kansas, with federal high-speed rail grant money providing half the funding. The ensuing SDP prepared by the states in 2011 analyzed the following alternatives:

- Extending the *Heartland Flyer* from Oklahoma City to Newton, Kansas: The study estimated that this service option, which would operate overnight north of Oklahoma City to connect with Amtrak's *Southwest Chief* in Newton, would require approximately $136.5 million in capital startup costs, and increase ridership on the *Heartland Flyer* by 111,300 annual passengers.

6 Kansas Register, Volume 40 – Issue 15 – April 15, 2021. Retrieved from: https://sos.ks.gov/publications/Register/Volume-40/Issues/Issue%2015/04-15-21-49056.html.

7 KDOT Heartland Flyer Service Development Plan fact sheet, Winter 2024. https://www.ksdot.gov/Assets/wwwksdotorg/passrail/documents/KDOTPassengerRailFAQFactSheet.pdf. Retrieved October 2024.

8 Enrolled House Concurrent Resolution No. 1003. Signed on April 26, 2021. Retrieved from: https://legiscan.com/OK/text/HCR1003/2021.

9 Kansas Department of Transportation, Kansas City-Wichita-Oklahoma City-Fort Worth Corridor Passenger Rail Service Development Plan, November 2011. Retrieved from: http://www.ksdot.org/PDF_Files/PDF-Passenger-Rail- SDP.pdf.

10 Kansas Department of Transportation, Feasibility Report of Proposed Amtrak Service, March 9, 2010. Retrieved from: http://www.ksdot.org/PDF_Files/FINAL-Amtrak-Study.pdf.

- Introducing a new daytime Fort Worth-Oklahoma City-Kansas City passenger train: The study estimated that this service option would require approximately $436.2 million in capital startup costs, and generate an annual ridership of 256,700.
- Extending the *Heartland Flyer* to Newton, and introducing a new daytime Fort Worth-Kansas City passenger train: The study estimated that this combination of services would require approximately $475.0 million in capital startup costs, and generate a combined annual ridership of 368,000.

Considerations for Use of State-Owned Equipment

As noted previously, under PRIIA, states are required to bear a higher percentage of operating costs for passenger rail routes of less than 750 miles, under a cost methodology that went into effect in FY2014 (October 2013). This change in federal law has resulted in a substantial increase in state payments for maintaining the operation of the *Heartland Flyer*. Some states have reduced their operating costs by purchasing their own passenger rail equipment and having Amtrak crews operate state-owned locomotives and cars. (The requirements of the freight railroad over which the *Heartland Flyer* operates stipulate that Amtrak must provide the operating crew.) California and Washington are among the states that have purchased new intercity passenger rail equipment for state-supported corridor services, while North Carolina has had great success providing trains of used equipment refurbished to its specifications. Washington and North Carolina also have arranged with private-sector contractors for rail equipment maintenance services, while Maine has reduced its costs for providing on-board food and beverages by contracting with the private sector for that service. The purchase of state-owned equipment would most likely be financed with capital grants, but states often have more flexibility in obtaining one-time grants for capital purchases or improvements compared to yearly or recurring requests for grants to support ongoing operations.

The use of *Heartland Flyer* equipment owned by Oklahoma and Texas might also create some potential synergies with Trinity Railway Express (TRE), perhaps introducing the possibility of a *Heartland Flyer* extension to Dallas, perhaps using TRE crews, and potentially contracting with TRE for maintenance and servicing of the *Heartland Flyer* trainset at its Dallas maintenance facility. Under this type of arrangement, the *Heartland Flyer* could potentially operate as a limited-stop express train between Fort Worth and Dallas, with a cross-honoring agreement for TRE ticketholders.

Concepts to Improve Connectivity

Improving the ease with which *Heartland Flyer* passengers can make connections with other services at Fort Worth has the potential to increase the train's attractiveness across a wider segment of the Dallas travel market. Currently, when passengers on Amtrak's website (www.amtrak.com) book a ticket for travel from Oklahoma and Gainesville to Dallas, the only connecting option at Fort Worth that appears is the connection with Amtrak's long-distance *Texas Eagle*. This connection has a long layover at the Fort Worth train station, especially for northbound travelers (4 hours) and introduces reliability issues, which can be especially burdensome for a short-distance trip. Passengers on the Amtrak website have no indication that they could shorten their wait time at Fort Worth by connecting to TRE commuter trains, which operate at least hourly in each direction Monday through Saturday.

One concept to improve connectivity would be to establish a through ticketing agreement between Amtrak and TRE, which would give *Heartland Flyer* travelers the option of connecting with frequent TRE trains at Fort Worth for travel to and from Dallas, and the ability to purchase a through ticket on Amtrak's website, under a revenue-sharing arrangement between Amtrak and TRE. For additional convenience, Amtrak or a contract service provider could offer a connecting motor coach service on Sundays, when TRE does not operate.

Another concept for further study would be to offer *Heartland Flyer* riders a transit transfer. Under this arrangement, conductors would provide transfers valid on participating transit agencies for travel beyond the Amtrak station. This program was pioneered on Amtrak's Capitol Corridor in Northern California, whose public funding authority secured agreements with eleven connecting transit agencies. These agencies have their logos and internet links on the Capitol Corridor website and the transit transfer is promoted in timetables as a marketing program, creating awareness among a new group of potential riders. California Department of Transportation's Division of Rail has helped to support initiatives such as Thruway ticketing programs and other ticket honoring agreements by facilitating negotiations between operators and assuming the revenue risk if there are problems with the implementation of the service.

Sunset Limited Service Improvement Concepts

Amtrak has received funding from FRA under the Corridor ID Program to study and plan for the infrastructure, equipment, service, and funding requirements associated with increasing the service frequency of the *Sunset Limited* route (Los Angeles – El Paso – San Antonio – Houston – New Orleans) from thrice-weekly to daily. The Corridor ID Program funding will enable Amtrak to complete a service development plan that will identify capital and operating needs, National Environmental Policy Act (NEPA) evaluations, and preliminary engineering for the increase of service to daily.

Amtrak's *Sunset Limited* route is a key link in a nationwide matrix of city pairs served by Amtrak brought about by the direct transfer of through cars at San Antonio routed between Los Angeles and Chicago via the *Texas Eagle*. Because of the through-car transfer with the *Texas Eagle*, any changes made to the *Sunset Limited's* service or schedule may have a cascading effect on every community in Texas served by an Amtrak long- distance train, not just the cities on the *Sunset Limited* route. Amtrak data from before the COVID-19 pandemic noted that almost 20% of the ticket revenues on the *Texas Eagle* are generated by passengers continuing their journey on the *Sunset Limited*. Nevertheless, the *Sunset Limited's* current tri-weekly service and on-time performance serve to discourage potential customers and create operational inefficiencies. Yet if the *Sunset Limited* were discontinued, the loss in revenue to the *Texas Eagle* would be immediate, and would turn the *Eagle* into one of Amtrak's worst performing routes.

In 2010, Amtrak completed a broad-based study of options to improve the performance of both the *Sunset Limited* and *Texas Eagle*, an analysis required under PRIIA for all Amtrak long-distance services.[11] The study's conclusion was that the only effective strategy to improve performance of the routes was to address its most fundamental impediment: the tri-weekly operation of the *Sunset Limited*. The study recommended a complete restructuring of the *Sunset Limited* and *Texas Eagle* to address what Amtrak believed to be the key shortfalls of the current service, which were raising costs by creating operational inefficiencies as well as reducing revenue by offering a product that was inconvenient for most travelers. The major changes recommended were:

1. Extend the *Texas Eagle* to provide daily Chicago – Dallas – Fort Worth – San Antonio – El Paso - Los Angeles service, by combining the current Chicago-San Antonio portion of the *Texas Eagle* and the current San Antonio-Los Angles portion of the *Sunset Limited* into one transcontinental train.
2. Convert the *Sunset Limited* into a daily New Orleans – Houston – San Antonio service, with a cross-platform connection to the *Texas Eagle* at San Antonio for riders traveling further west.

11 Amtrak report titled "PRIIA Section 210 FY10 Performance Improvement Plan, Sunset Limited/Texas Eagle." September 2010.

This recommended service restructuring would expand the attractiveness of the combined Texas Eagle/Sunset Limited network by providing the convenience of daily departures for all city pairs. As noted in Chapter 2, the current *Sunset Limited* route serves many major cities 300 to 400 miles apart, more than many other long-distance western trains. Daily service would better meet the customer requirements in these markets, when compared with today's tri-weekly service, and is projected to generate higher ridership. Daily service also would bring opportunities to attract new travel sectors, such as college students, riders traveling on personal business, passengers traveling to connect to cruises, and those traveling for short-stay entertainment/recreation trips.

Amtrak's study projected that the restructured *Texas Eagle/Sunset Limited* service would generate an additional 124,000 riders per year and an additional $10 million in revenue systemwide. Further, by eliminating the inefficiencies of tri-weekly service, the equipment would be used more productively. Coach and sleeping car capacity would increase, while the number of cars required for the service would be reduced, noted the study. Amtrak projected that daily operation would increase overall efficiency, noting that while train miles would increase 76%, avoidable costs (the direct costs of operating the service) were expected to increase only by 31%.

One reason for the improvement in equipment utilization is that services aboard each train would match the requirements of the passengers. The *Texas Eagle* would offer coaches, sleeping cars, a full diner, and a full lounge car between Chicago and Los Angeles, while the *Sunset Limited* would become a coach-only train with a combined diner-lounge providing food and beverage service on its daytime trip between New Orleans, Houston, and San Antonio. Currently, both the *Texas Eagle* and *Sunset Limited* operate with dining cars and lounge cars.

As noted in the 2010 Amtrak report, Table 3-1 summarizes the changes projected to occur as a result of this service restructuring. Ridership and revenue show substantial increases, while avoidable costs (the direct costs of operating the service) grow less than the increase in train-miles and less than the increase in revenue. The forecasted revenue/cost ratio also shows positive improvement.

Table 3-1: Texas Eagle/Sunset Limited Restructuring Metrics

Route	FY 2009 Ridership	FY09 Total Rev (Millions)	FY09 Avoidable Costs (Millions)	Revenue/Avoidable Cost Ratio
Baseline Sunset/Eagle	339,200	$31.1	$58.3	53.3%
Restructured Sunset/Eagle	442,300	$38.8	$70.5	55.0%
% Change	30.4%	24.8%	20.9%	3.2%

Source: PRIIA Section 210, FY10 Performance Improvement Plan Sunset Ltd/Texas Eagle, September 2009, 2010 Amtrak Monthly Performance Report, Sept 2009, 2010 Amtrak Train Earnings

Following the report's release, Amtrak in 2010 began taking steps to introduce daily service between New Orleans and Los Angeles under a restructured *Sunset Limited* and *Texas Eagle* arrangement. However, host railroad Union Pacific expressed reluctance to approve the change at the time, citing the increasing freight volumes on its transcontinental Sunset Route and its desire to complete a project to build a second mainline track along 760 miles of the route between El Paso, TX and Colton, CA. UP did perform an analysis of potential impacts to its operation resulting from daily passenger service, and informed Amtrak that daily operation of the *Sunset Limited* on its line would require an

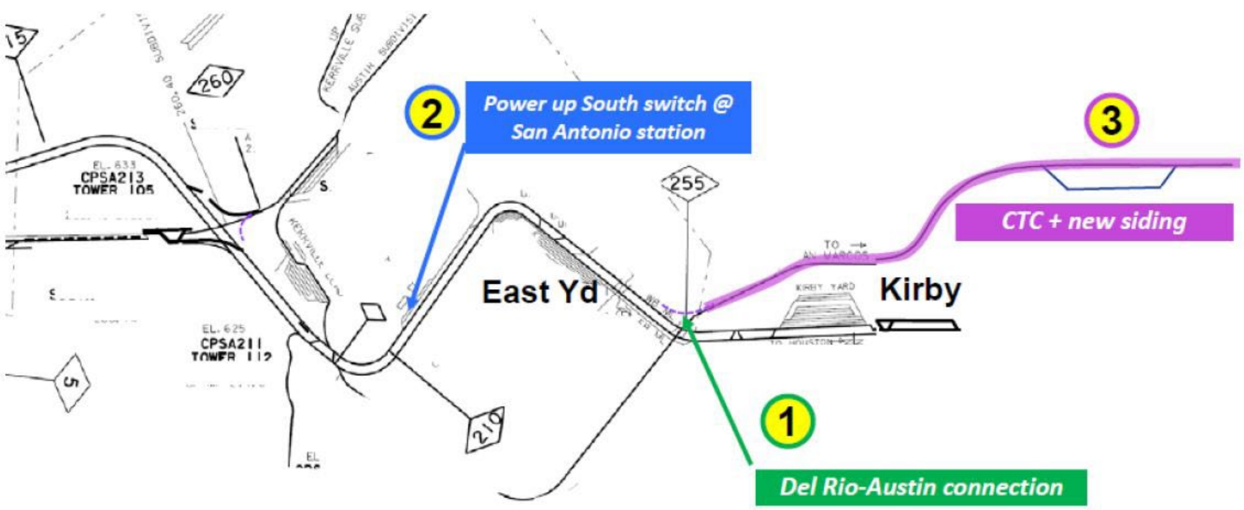
investment of $750 million in additional infrastructure and other capital improvements.[12] Lacking the capital funds to make the requested improvements, Amtrak stopped actively pursuing the project.

Since then, Amtrak and UP have agreed on several, successive retimings of the *Sunset Limited's* schedule, including an adjustment in 2012 that changed the westbound train's days of departure. One proponent of daily service has been the Jefferson County Commissioners Court, which voted unanimously in January 2019 to support an expansion of daily train service in Southeast Texas.[13] Any type of *Sunset Limited* service expansion would require funding commitments and agreements, both for capital expenditures as well as ongoing operating and maintenance costs.

San Antonio Amtrak Improvements

TxDOT is partnering with Amtrak and Union Pacific Railroad (UP) on a program of passenger rail improvements known as the San Antonio Amtrak Improvements Project, which will help streamline rail operations within the San Antonio region. Figure 3-3 shows a map of the project components. Amtrak serves San Antonio with two train services, the *Sunset Limited* and *Texas Eagle* routes, both operated on UP's freight rail network. Amtrak and UP have identified the following improvements to the network that would improve operations for both passenger and freight rail service within the San Antonio region.

Figure 3-3: Project Concepts for San Antonio Amtrak Improvements



Source: TxDOT

The Project includes the following components, which are illustrated in Figure 3-3:

- Switch Replacement: Replacement of the No. 10 manual switch at Amtrak's San Antonio Station (MP 209.73) with a new, remote-controlled power switch and installation of a split point power derail (noted with a number 2 in blue on Figure 3-3).

12 http://cs.trains.com/trn/b/fred-frailey/archive/2010/09/03/is-a-daily-quot-sunset-limited-quot-worth-750-million.aspx.

13 https://www.beaumontenterprise.com/news/article/Jefferson-County-Commissioners-vote-on-supporting-13552862.php.

- Wye Connection: A new 4,000 track-foot Wye connection between UP's Del Rio and Austin Subdivisions (noted with a number 1 in green on Figure 3-3), which will eliminate a daily backup move through downtown San Antonio for the northbound *Texas Eagle* prior to operating northward toward Fort Worth and Chicago.
- Siding Installation: A new 10,000 track-foot siding on UP's Austin Subdivision and upgraded centralized traffic control (CTC) signaling on approximately 23 miles between Tower 112 and North Schertz (noted with a number 3 in purple on Figure 3-3).

TxDOT, UP, and Amtrak have completed studies and capital programing for all three projects, and the need for the siding was identified in TxDOT's 2018 Central Texas Grade Crossing Study. The project would generate the following improvements:

Improved Safety. The current switch at the Amtrak San Antonio Station is operated manually. Hand throwing the switch at the San Antonio Amtrak Station is labor intensive and requires railroad workers to disembark from the Amtrak train onto railroad right-of-way, throw the switch, and then re-board the train. This laborious activity also causes delay. The project would replace the manual switch with a powered switch that would be operated remotely, eliminating safety risks and potential injuries related to manually changing the switch's position and also reducing the risk of mechanical failure. In addition, construction of the Wye track would establish a different routing for outbound *Texas Eagle* Amtrak trains, which would cross different roadways with at-grade crossings, most of which have lower traffic volumes than the crossings along the current outbound *Texas Eagle* route.

Reduced Passenger Rail Delay. Current Amtrak operations for departing *Texas Eagle* trains entail a back-up movement out of the San Antonio station onto UP's Del Rio Subdivision to a junction where UP routes converge, then a forward movement on UP's Austin 2 Subdivision. With the construction of a new Wye connection track between these subdivisions northeast of the passenger rail station, the back-up movement will no longer be needed and the *Texas Eagle's* route will be about 3 miles shorter. The Wye connection would streamline Amtrak movements out of the San Antonio Amtrak station and reduce travel time for Amtrak passengers and on-board crew.

Another time-saving improvement is the upgrade of the south switch to the Amtrak station from a manual switch to a powered switch, operated remotely. Operation of a powered switch takes less time, saving not only the time for the worker, but also waiting time for Amtrak passengers and the rest of the Amtrak onboard crews. In addition, the requested introduction of CTC for approximately 23 miles on the Austin 2 Subdivision will help facilitate train meets in this area, allowing better track utilization and reduced wait time when train meets occur.

Reduced Freight Rail Delay. While the Project is designed to facilitate and streamline Amtrak movements, Amtrak movements occur on UP's freight rail network. Therefore, improving Amtrak's travel time leads to improvements for freight trains as well. Furthermore, some of the improvements, such as the planned 10,000-foot siding on the Austin Subdivision and installation of approximately 23 miles of CTC signaling, would be utilized by freight trains even when Amtrak trains are not present, generating benefits continuously for the shared-use rail network in San Antonio. The project is estimated to reduce train delay by 2.5 hours per day every day of the year. Without the requested improvements, train delay is expected to grow 0.25 hours annually.

Amtrak Five Year Strategic Plans

In more recent years, the individual long-distance train studies prepared under PRIIA have been replaced by a requirement that Amtrak produce five-year strategic plans, as mandated under Section 11203(b) of the Fixing

America’s Surface Transportation (FAST) Act. In 2024, Amtrak released its FY24-29 “Five Year Plans,” which outlines strategic, five-year initiatives for each service line between FY 2024 and FY 2029.[14] These plans do not identify initiatives for individual trains such as the *Sunset Limited*, but focus on overall improvements that benefit particular types of services, such as long-distance trains and state-supported regional trains, regardless of location.

Amtrak’s five-year plan for the State Supported Service Line, which the *Heartland Flyer* is a part of, lists the following overall strategies:

- Achieve Sustainable Economics: Achieve sustainable economics by reducing cost on a per seat mile basis and growing ridership by 37%. Key initiatives to reduce costs per seat mile include improved equipment utilization, deploying new equipment, adding new frequencies, adding cars to trains where demand warrants, and adding new routes. Key initiatives to increase ridership include adding capacity, improving the customer experience, and reducing delays to improve customer on-time performance.
- Improve Customer Satisfaction: Improving the customer experience will increase Customer Satisfaction Index (CSI) scores. Strategies to improve CSI include focusing on improving customer on-time performance, supporting the integration of state partners into the Amtrak Service Recovery vision, and developing a CSI improvement strategy that integrates the states and Amtrak experience vision to include Wi-Fi reliability and onboard service standards.
- Improve Partnerships with Service Sponsors: Amtrak will implement the policy revisions made by the State-Amtrak Intercity Passenger Rail Committee to the PRIIA Section 209 cost policy that governs how costs are allocated for the intercity passenger rail services that states and other service sponsors are responsible for funding. In addition, Amtrak has created a Strategy and Performance Management team within its State Supported Service Line to increase its strategic alignment with state partners.
- Food and Beverage Vision and Strategy: Continue to work with state partners to improve food and beverage service on State Supported routes—creating a robust process that will facilitate interaction, enhance decision-making, and improve monitoring. Amtrak’s vision includes incorporating Food and Beverage into the annual route-level planning process, business intelligence portal, and route level scorecards. Amtrak is also developing guidelines for suppliers and product placements to inform state partners about the process for adding new Food and Beverage items to those sold on Amtrak trains.

Amtrak’s five-year plan for the Long Distance Service Line, which includes the *Texas Eagle* and *Sunset Limited*, lists the following overall strategies:

- Empower People: Key activities in the next five years include developing tools and training for front-line employees and operational teams, particularly as it relates to new corridor and long-distance cars and locomotives that will be placed in service or ordered within the next five years.
- Delight Customers: Amtrak’s strategy for better meeting customer needs and improving the customer experience will focus on two key areas:
  - Launch product initiatives: These include:
    - Investing $28 million in upgrades to nearly 400 passenger cars in the Superliner fleet (used on Western long-distance trains) and refreshing 49 Viewliner I sleeping cars.

14 https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/businessplanning/Amtrak-Service-Asset-Line-Plans-FY24-29.pdf.

    - Improving food and beverage offerings by reintroducing traditional dining on additional long-distance routes and developing a new vision for food and beverage service on long-distance trains.
    - Improving accessibility by retrofitting the accessible bathrooms in 23 Superliner I coach cars to accommodate larger wheelchairs and add a changing table inside, and working toward the goal of making all train stations for which Amtrak has ADA responsibility fully compliant by 2028.
    - Improving communications with customers during delays and service disruptions, especially via email, text message, and push notifications from the Amtrak App.
    - Enhancing Wi-Fi on single-level equipment and exploring the deployment of Wi-Fi on the remainder of the Superliner fleet to offer connectivity for passengers on western Long Distance routes.
    - Expanding the promotion of First Class private rooms through flash sales, free companion travel deals, a new landing page on Amtrak.com, a media campaign, and heightened visibility of room options for passengers booking travel on Amtrak.com or the Amtrak app.
  - Improve utility and reliability: Improve Amtrak's on-time performance and increase the desirability of its service by working with host railroads to identify opportunities for mitigating host railroad and Amtrak-caused delays, enforcing Amtrak's access rights, and piloting new schedules to improve long-distance service performance on some routes.
- Drive Transformation: Amtrak's strategy for transforming the Long Distance Service Line will focus on three key areas:
  - Invest in a new long distance fleet: With funding made available in the IIJA, Amtrak has begun the process of procuring a new fleet of long-distance passenger cars, which will replace the approximately 480 bilevel Superliner cars that were built in the 1980s and 1990s (nearly 60% of the Superliner cars are used on long-distance routes) and the 135 single-level long-distance Amfleet II coaches and lounge cars that were also built in the 1980s. Amtrak released a Request for Proposals (RFP) in late 2023 for new long-distance equipment, and based on the RFP schedule, is targeting the end of 2024 to negotiate terms and secure final funding approval for an equipment order. Similar to Amtrak's Airo short-distance equipment currently on order, the new long-distance fleet is anticipated to be configured as a core trainset that includes coaches, private rooms and dining and lounge cars, with the ability to provide new types of onboard services.
  - Expand the deployment of ALC-42 locomotives: Amtrak is in the process of receiving 125 new ALC-42 diesel locomotives built by Siemens in Sacramento, CA. The first locomotives in the order arrived in 2022. The new locomotives have begun replacing the older P-40 and P-42 locomotives built in the 1990s on long-distance and state-supported trains. The ALC-42 locomotive can operate at up to 125 mph (15 mph faster than a P-42 locomotive) and has a larger fuel tank and increased power-generating capabilities to supply heat, light, and ventilation to passenger cars to better accommodate the characteristics of long-distance service and equipment. More than three dozen engines are currently in service. Deliveries of ALC-42 locomotives will continue through 2029.
  - Increase Operational Resilience, Efficiency and Effectiveness: Primary objectives are to reduce car and locomotive maintenance costs and turnaround times, which the delivery of new long-distance equipment and a continuous programmed maintenance protocol will help facilitate. The evolution of the operating model is also expected to improve fleet availability.
- Grow the Business: Amtrak's strategy for growing the long-distance service line business will focus on the following key areas:

- Increase ridership and expand the network: This will be accomplished through a two-phase approach. The first phase consists of restoring 63 cars to service top increase passenger capacity and capture additional market demand. The second phase involves working with Congress to expand the long-distance network, guided by the recommendations in the FRA Daily Long Distance Service Study and subject to the availability of funding and equipment, prioritizing an increase to daily service on Amtrak's two tri-weekly long-distance routes, the *Sunset Limited* and the *Cardinal*.
- Improve asset utilization: Amtrak is identifying and undertaking initiatives to improve asset utilization and fleet availability on the existing long-distance network to increase and better deploy capacity to meet demand.

Amtrak's five-year service plan for the Long Distance Service Line does not contemplate any changes to existing train frequencies over the next five years, but does include the following service modifications to long-distance trains:

- Restoring a Viewliner II dining car to the *Crescent* in Q4 FY24.
- Restoring a Superliner sightseer lounge car to the *Texas Eagle* beginning in Q1 FY25.
- Operating a transition sleeper on all Superliner long distance routes except the Auto Train by Q1 FY26.
- Addition of coaches and sleeping cars on routes throughout the long-distance network with the highest passenger demand and revenue potential.
- Temporary alterations of long-distance and regional train services that operate over the Northeast Corridor or use Northeast Corridor stations and facilities, in order to accommodate planned Northeast Corridor infrastructure improvements, particularly the rehabilitation of the East River Tunnels in New York City and the resulting reduced access to Sunnyside Yard where trains serving New York Penn Station are serviced.

Amtrak Texas and Oklahoma Rail Improvements

Amtrak has requested $25 million in its FY 2025 Annual Request to Congress to begin the preliminary work on a series of projects it has labeled "Texas and Oklahoma Rail Improvements."[15] The projects would improve rail infrastructure, stations, and mechanical facilities along the routes of the *Texas Eagle*, *Sunset Limited*, and *Heartland Flyer*. Amtrak estimates that the total cost of the improvements could be $300 million. The requested $25 million in preliminary funding would support initial pre-construction activities and fund full the construction of some projects. In its funding request, Amtrak stated that a $25 million appropriation for Texas & Oklahoma Rail Improvements in FY 2025 could support the following:

- Infrastructure Investments to Improve Reliability and Performance. Funding could support investments (1) to strengthen and stabilize track along the route of the *Heartland Flyer* (where subgrade issues can cause delays), and (2) to address congestion issues in or around San Antonio and Houston, and along the route of the *Heartland Flyer*.
- Stations Investments to Improve Customer Experience. Funding could support upgrades and repairs to bring roughly two dozen Texas and Oklahoma stations into a state of good repair, as well as more expansive improvements in Fort Worth and at the undersized San Antonio station.
- Facilities Investments to Improve Equipment Servicing. Funding could help identify mechanical facility options in Dallas-Fort Worth to service current equipment and, as applicable, additional equipment required for any future service expansions.

15 https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/reports/Amtrak-General-Legislative-Annual-Report-FY2025-Grant-Request.pdf.

The Texas and Oklahoma Rail Improvements projects are not primarily intended to support any proposals for future passenger rail services that are currently being studied as part of FRA's Corridor ID Program, but all of the Amtrak-requested improvements are compatible with, and some would actually support, those efforts.

Amtrak Station Improvements

As noted in Chapter 2, many local communities, local developers, and rail supporters have obtained funding for new or refurbished passenger rail stations in Texas. However, other stations have state-of-good repair needs or require modifications or improvements to meet accessibility requirements under the Americans with Disabilities Act of 1990 (ADA). Amtrak is committed to bringing its facilities into compliance with ADA station requirements through its Accessible Stations Development Program (ASDP). Amtrak's FY24-29 Five Year Plan budgets an average of approximately $185 million per year over the next five years to support such station work as ASDP, passenger information display systems, and a platform gap solution.[16] However, that may not be sufficient to address all accessibility requirements at station areas in a timely manner. TxDOT will continue to encourage and help facilitate local communities in applying for federal, state, local, and private funding to address state- of-good repair and ADA needs at their stations.

Amtrak has full or partial ADA compliance responsibility at 14 of the 19 stations it serves in Texas (the exceptions being Dallas, El Paso, Fort Worth, San Antonio, and San Marcos). In the past five years, Amtrak has completed accessibility improvements at Del Rio, Longview, McGregor, and Sanderson. Table 3-2 lists proposed improvements for Amtrak stations in Texas to bring the facility's functionality or convenience for passengers in line with Amtrak station planning guidelines, or to improve the connectivity of the station with the surrounding area.

16 https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/businessplanning/Amtrak-Stations-ALP-Appendices-FY24-29.pdf.

Table 3-2: Proposed Amtrak Station Improvements

Station	Long-Term Improvements
Alpine	Improve platform, install platform seating.
Cleburne	Construct new station platform with associated paths of travel and signage.
El Paso	Rebuild station platform, parking area, and path of travel to ensure ADA compliance; install platform seating.
Gainesville	Construct new station platform with associated ramps, stairs, railings, and signage; pave sidewalk crossing tracks near station.
Houston	Construct new station platform with associated paths of travel and signage; add lighting from station platform to adjacent sidewalk and street; construct new North Intermodal Center.
Marshall	Construct new station platform with improved length and height; construct associated paths of travel and signage.
Mineola	Construct new station platform with associated paths of travel and signage; add shelter and pave sidewalk crossing tracks.
San Antonio	Station may relocate to West Side Multimodal Center.
Taylor	Construct new station platform with associated ramps, stairs, railings, and signage.
Temple	Construct a new parking lot, signage, station platform, and path of travel to the historic Santa Fe station.

Source: Amtrak

Two local groups have been actively working to add station stops along the *Sunset Limited* route. The City of Flatonia reached an agreement in 2017 with Union Pacific and Amtrak to add a station stop in their community, located approximately halfway between Houston and San Antonio. (Currently, the train does not make any station stops between the two major cities.) UP had agreed to allow the stop provided a station track was constructed so that the train could board and detrain passengers without stopping on the mainline tracks.[17] However, the City's agreement expired in October 2018 and would need to be reviewed by the host railroad if interest and funding were made available for this project in the future.

Further west, a local campaign is underway to establish a station stop in the arts community of Marfa, which is located along the *Sunset Limited*'s route, about 115 miles west of Sanderson, and about 25 miles west of Alpine, the closest current Amtrak station. Local leaders have tried several times in the past to advance the idea of a station stop at Marfa. The current initiative, begun by a San Antonio resident who organized a letter-writing campaign, is in the early stages of development.[18]

17 https://csanders429.wordpress.com/2017/09/12/sunset-limited-to-serve-flatonia-texas/.

18 https://csanders429.wordpress.com/2018/02/12/marfa-seeks-to-be-sunset-limited-stop/.

Thruway Bus Service

Thruway bus connections provide a convenient way for rail travelers to reach destinations beyond the physical limits of a rail corridor by offering coordinated bus-rail schedules, through fares (one-purchase ticketing), and guaranteed connections to and from the trains they feed. Thruway connecting bus routes add additional cities to the passenger rail network and provide vital service to transit-dependent residents in rural areas. They have proven successful in generating incremental ridership and revenue and have the ability to build a ridership base for a future rail corridor service if conditions permit. Routes with the highest traffic may have dedicated charter motor coaches, although successful Thruway bus services may also utilize regularly scheduled motor coaches, carrying both rail and bus passengers ("mixed mode"). Chapter 2 identifies the existing Thruway bus and interline bus routes that provide connecting services at passenger rail stations in Texas.

TxDOT supports partnerships between the motor coach industry and Amtrak to create additional intercity transportation routes for rural Texas communities, some of which lost their intercity bus and airline service as a result of market-based restructurings of the service providers. A broad-based study with input from rail service stakeholders plus discussions with motor coach operators may also be an effective next step in this effort.

Proposed Passenger Rail Project: Dallas to Houston High-Speed Rail Project

The Texas Bullet Train began as a private-sector initiative undertaken by Texas Central Partners (Texas Central), but in 2023, Amtrak forged a public-private partnership with Texas Central to provide planning assistance, access to additional funding streams, and resource support. The slowdown of the economy during the COVID-19 pandemic and subsequent dissolution of the board in 2022 has caused the project to move slower in recent years than initially planned.[19] This section provides information about the proposed Texas Bullet Train.

Project Overview

Texas Central Partners, a private company, has proposed to build and operate a dedicated high-speed passenger rail system between Dallas and Houston. An affiliated company, Texas Central Railway, which is incorporated as a railroad with the Texas Secretary of State, has attained the necessary environmental and FRA approvals ahead of construction, along with the right of eminent domain from the Texas Supreme Court.[20] Texas Central proposes to construct a 240-mile-long dedicated rail corridor (fully separated from motor vehicle traffic, other railroad traffic, pedestrian traffic, and wildlife) that would enable passenger trains to operate at speeds of up to 205 miles per hour and achieve travel times of approximately 90 minutes between Dallas and Houston, with one intermediate station stop in the Brazos Valley. A 2023 agreement between Amtrak and Texas Central to jointly pursue opportunities to advance the planning and analysis of the project has changed the venture to more of a public-private partnership.

The project intends to use the N700-S bullet train system, which is based on the most recent Japanese Shinkansen high-speed rail technology. Features of this technology planned to be adopted by the Texas Bullet Train include the use of self-propelled, bidirectional high-speed trainsets powered by electricity that is supplied to the train from overhead

19 https://www.enr.com/articles/54307-texas-high-speed-rail-project-ceo-exits-company-board-disbands.

20 https://enotrans.org/article/texas-central-hsr-project-wins-eminent-domain-case/.

catenary wires, and an Automatic Train Control system (a form of Positive Train Control) that automatically controls the train's speed to ensure it does not exceed the speed limit prescribed by the signal system. The proposed design includes the construction of two parallel high-speed tracks, one for northbound travel and one for southbound travel, enabling trains moving in opposite directions to pass each other without conflict. The high- speed rail system would be self-contained and would not have connections to the existing national railroad network. The train technology used for the Texas Bullet Trains would be modified from the Japanese prototype to meet U.S. regulatory requirements and local environmental conditions, as determined by the FRA's Rule of Particular Applicability regulating the safe operation of the high-speed rail system.

Environmental Documentation

In compliance with the National Environmental Policy Act (42 U.S.C. §4321 et seq.), the FRA prepared an environmental impact statement (EIS) for the proposed Texas Central project.[21] TxDOT assisted FRA in providing oversight of the environmental review. Texas Central's proposal to build and operate a high-speed passenger rail system between Dallas and Houston established this federal action, because FRA must review and approve the safety of the system. The Draft EIS was first published in 2017 and Final EIS was published in 2020.

In accordance with NEPA process, FRA first released the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement (Draft EIS), which was signed on December 15, 2017 and published in the Federal Register on December 22, 2017.[22] The Draft EIS evaluated potential impacts to the human and natural environment of six build alternatives for the proposed route between Dallas and Houston as well as the No-Build Alternative. The document also included analysis of a terminal station site in Dallas, an intermediate station in the Brazos Valley, and three options for terminal stations in Houston: the Industrial Site Terminal, the Northwest Mall Terminal, and the Northwest Transit Center Terminal.

The evaluation concluded with the selection of Build Alternative A as the proposed Preferred Build Alternative. FRA held a public comment period for the Draft EIS during the spring of 2018 that included 11 public hearings in Texas counties along the proposed rail line.

The Texas Commission on Environmental Quality (TCEQ) began conducting a water quality review to determine whether or not to approve Texas Central's application to the State and the Army Corps of Engineers for permits to discharge dredged or fill material into Waters of the United States during construction of the project. The TCEQ reviewed the permit applications under Section 401 of the Clean Water Act and in accordance with Title 30, Texas Administration Code Chapter 279, to determine if the proposed work would be consistent with Texas Surface Water Quality Standards and the Clean Water Act. The commission began its review in late 2017 and held three public meetings during August and September of 2018 as part of its certification decision process.

In May 2020, FRA published over 10,000 pages of the Final EIS document that refined its analysis of the build alternatives and addressed comments received from the public. The public commenting period was open until July 2020. In September 2020, a Record of Decision (ROD) was issued in favor of the project and proposed activities.

21 https://railroads.dot.gov/environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail-final.

22 https://railroads.dot.gov/environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail-draft.

Since the ROD was published in November2020 in the Federal Register,[23] Texas Central advanced to the final stage of engineering and planning ahead of construction.

Safety Regulation Framework

In addition to publishing the environmental ROD in the Federal Register on November 3, 2020, FRA also published a Rule of Particular Applicability setting forth the high-speed safety standards under which the Texas Central would be regulated.[24] The Rule of Particular Applicability establishes the safety and regulatory requirements for the operation of Texas Central high-speed trains using the same technology, infrastructure, and equipment used on Japan's Tokaido Shinkansen system, in a manner that can be regulated under a framework similar to other U.S. passenger rail operations while maintaining the integrity of the safe high-speed rail system developed by The Central Japan Railway Company over a 50-plus-year span of operating high-speed trains. The rule confirms that the high-speed Texas Central operation will be regulated by FRA, and not another federal agency. However, since many of FRA's existing regulations in many of the railroad safety disciples do not address the safety concerns and operational peculiarities of the high-speed Texas Central system, the Rule of Particular Applicability establishes an alternative regulatory approach to provide safety oversight that FRA will follow.

Proposed Route and Service

The Texas Bullet Train would operate on a newly constructed high-speed railroad corridor between Dallas and Houston. The Preferred Build Alternative for the corridor identified in the Draft EIS is Build Alternative A, which follows existing high-voltage power line easements (the CenterPoint Energy and Oncor Electric Delivery high-voltage electrical transmission lines) between Palmer (outside of Dallas) and Hockley (outside Houston), and follows other adjacent existing infrastructure, such as highways and railroads, for entry into Dallas and Houston. The selection of Build Alternative A as the Preferred Build Alternative was the end result of a rigorous screening process that began with a Corridor Alternatives Analysis, during which FRA evaluated four potential high-speed rail corridors between Dallas and Houston, and ultimately selected the "Utility Corridor" as its preferred route. FRA then conducted a second level of alternatives screening that evaluated 21 alignment alternatives within the Utility Corridor. Based on that analysis, FRA carried forward six end-to-end Build Alternative alignments (A through F) for evaluation in the Draft EIS.

Build Alternative A has an end-to-end length of approximately 234.37 miles. FRA selected this alternative because it would have the fewest permanent impacts to the natural, physical, socioeconomic, and cultural resources environment. The Draft EIS presents detailed results of FRA's route evaluation and selection process.

Approximately 58% (136 miles) of the Preferred Build Alternative's route would be built on elevated viaducts, at clearances similar to the highway standards used by TxDOT, to eliminate at-grade intersections of roadways, walkways, and bike paths; to maintain access to land for people and wildlife; and to allow both the high-speed trains as well as vehicle and pedestrian traffic to move without obstruction from one another. At locations where viaducts are not feasible, approximately 33% of route (77 miles) would be built atop elevated embankments, while the remaining 9% of the route (21 miles) would be built at ground level. At all locations, the right-of-way would be protected to prevent incursions onto the tracks from pedestrians or wildlife. The Draft EIS states that the minimum right-of-way

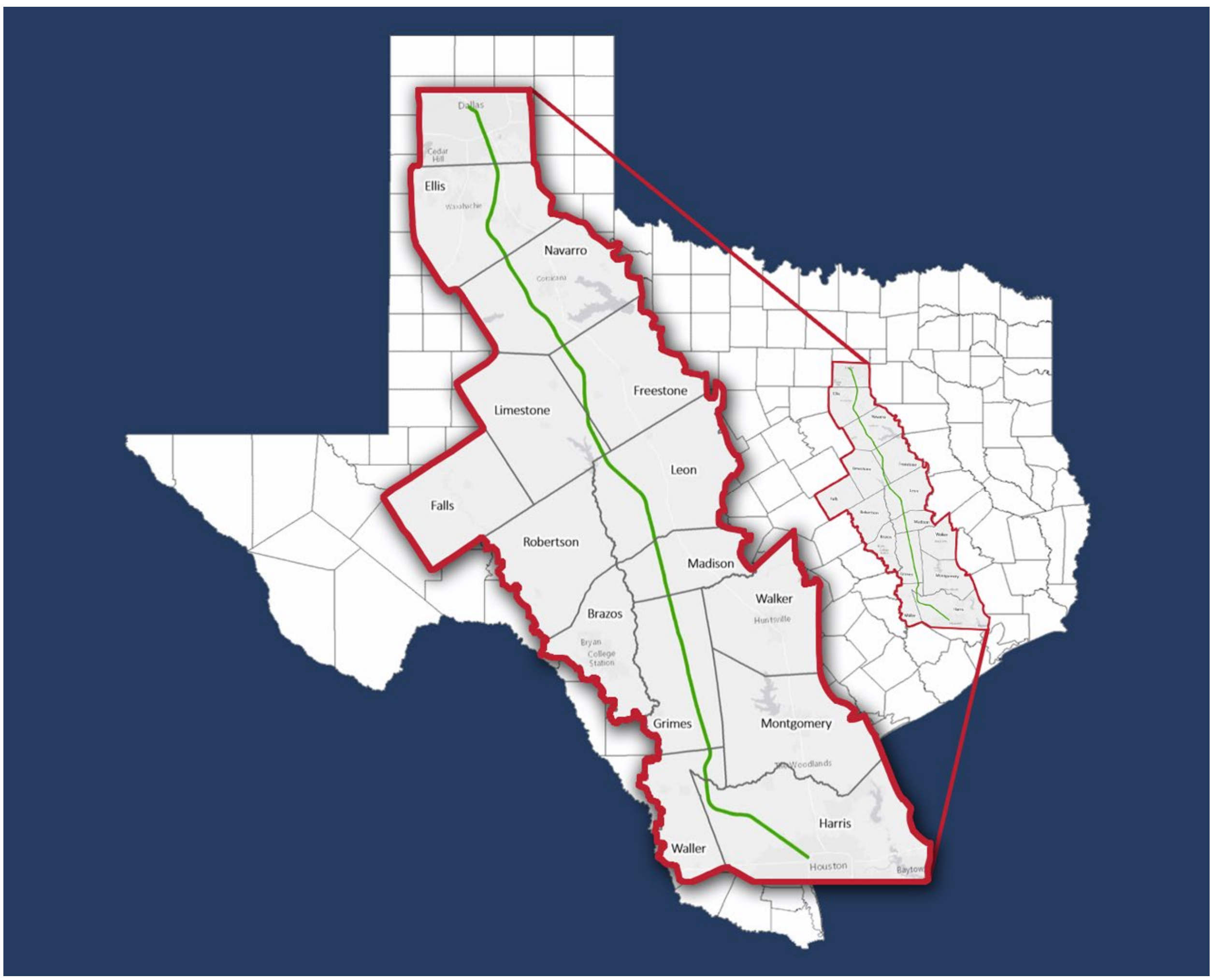
23 https://www.govinfo.gov/content/pkg/FR-2020-11-03/pdf/2020-20388.pdf.

24 https://www.govinfo.gov/content/pkg/FR-2020-11-03/pdf/2020-20388.pdf.

width required is 100 feet to accommodate the two mainline tracks, the overhead electric catenary system, an access road, and security fencing. The routes analyzed in the Draft EIS considered a maximum right-of-way width of 500 feet.

The high-speed rail service would have three passenger rail stations: a northern terminal in Dallas, a southern terminal in Houston, and an intermediate stop in the Brazos Valley near Roans Prairie, approximately halfway between Bryan/College Station and Huntsville. The proposed Dallas terminal site is located south of the Kay Bailey Hutchison Convention Center, in the Cedars neighborhood just south of downtown Dallas and Interstate 30. The proposed Houston terminal site is located in the northwest part of the city at the Northwest Mall, near the interchange of Interstate 610 and U.S. Highway 290. In addition to the passenger rail stations, the project would also require the construction of service, inspection and repair facilities for the trainsets; maintenance-of-way facilities for the right-of-way, track, and signal infrastructure; and traction power substations and other supporting electric power infrastructure. Figure 3-4 illustrates the route of the Preferred Build Alternative.

Figure 3-4: Preferred Build Alternative Route of the Texas Bullet Train



Source: Draft EIS, Preferred Alignment map

Under the operating plan for initial service (opening day) published in the Draft EIS, trains would depart the Dallas and Houston terminals every 30 minutes between 5:30 a.m. and 10:00 p.m., with a projected trip time of 90 minutes between the two endpoint terminals, including one intermediate station stop in the Brazos Valley. (The last arrival of

the day would be at 11:30 p.m. at each terminal.) A total of 34 northbound trains and 34 southbound trains would operate each day, for a daily system total of 68 revenue trains. Two additional levels of service, final and peak, have also been developed and could be implemented after startup if travel demand warranted. Features of these service levels include more departures per hour (as frequent as every 10 minutes during peak periods) and nonstop express trains between Dallas and Houston. Trains would operate at 186 mph in the initial service phase, although the more robust service levels include provisions for raising maximum speeds up to 205 mph, provided regulatory approvals are secured and travel demand warrants the increase.

Each trainset would be eight cars long and assembled as a fixed consist (cars would always be connected in regular operation) with seating for approximately 400 passengers. The trainset would not use locomotives to pull railcars, but instead would be built as a self-propelled electric multiple unit train. Cars would be equipped with devices to draw electric current from the 25,000-volt A.C. overhead catenary and feed it to motorized wheel sets beneath the railcar floor that propel the train forward.

Project Partners

When Texas Central had been a fully private venture, several partnerships with other private sector companies were developed to assist in the design, construction, operation, and maintenance of the proposed high-speed rail system. These partnerships were discussed in detail in Chapter 3 of the 2019 Texas State Rail Plan. However, Texas Central has not released any more recent information regarding the status of those since the Texas Central CEO stepped down and the board was dissolved in 2022.

It is clear, however, that Texas Central Railway has partnered with Amtrak to complete planning and pre-construction activities for the project under FRA's Corridor ID Program. Before the dissolution of the board, Texas Central planned to offer through-ticketing and a connecting shuttle service for rail passengers making trips that use both Amtrak intercity passenger rail services and the Texas Bullet Train. Under an agreement with Amtrak announced by Texas Central on May 4, 2018, passengers would be able to use the Amtrak reservation system to purchase tickets for trips that have travel segments on Amtrak's national passenger rail network as well as the Texas Central high-speed rail system. EBJ Union Station in Dallas, used by Amtrak and Trinity Railway Express, is approximately 1 mile from the proposed site of the Texas Central Dallas rail terminal. Amtrak's passenger rail station in Houston is approximately 7 miles from the proposed Texas Central rail terminal at the Northwest Mall. Texas Central has stated it will provide a connecting shuttle service between the Amtrak and Texas Central stations in Dallas and Houston for passengers with through tickets.

As the proposed project is based on technology owned by The Central Japan Railway Company (JR Central), it and Amtrak have entered into a non-binding agreement for JR Central to provide technical support for the development, construction, and implementation of the high-speed trainsets that will operate on the line, as well as the overhead catenary system, signal and safety systems, and communication systems.[25] The Texas Bullet Train will be based on the N700 Shinkansen high-speed rail trains and technology developed and operated in Japan by JR Central.

25 https://www.houstonpublicmedia.org/articles/news/transportation/2024/09/03/498444/houston-dallas-high-speed-rail-corridor-million-federal-grant/.

Agreements with Private Companies

Texas Central Partners had assembled a team of private companies to assist in the design, construction, operation, and maintenance of the proposed high-speed rail system. The most significant partnerships were with the Japan Bank of International Cooperation, which had been a primary source of funds for the project, and JR Central which will provide the high-speed rail technology and trainsets.[26]

With the dissolution of the Texas Central board of directors in 2022, information on the status of existing agreements has not been made available. Since the publication of the last state rail plan but before the dissolution of the board of directors, Texas Central had signed a $1.6 billion contract with Kiewit Infrastructure South and Mass. Electric Construction for the installation of core, large-scale electrical systems to support the operation of the proposed high-speed rail network, such as safety and systems elements, signaling, and communications equipment.[27] Amtrak is currently leading the development of the project. During a presentation at the 2024 Southwestern Rail Conference in Hurst, Texas, Amtrak's director of high-speed rail development, Andy Byford, stated that Amtrak and the Japanese government had entered a non-binding agreement to move the project forward again.[28] For a list of agreements with the Texas Central Partners prior to 2022, please refer to the 2019 Texas State Rail Plan.

Agreements with Amtrak and FRA for Federal Corridor ID Program Funding

The original agreement between Texas Central and Amtrak, as discussed above, related mostly to ticketing and access with Amtrak's other passenger rail services. In 2023, Amtrak announced that it had reached an agreement with Texas Central to expand the partnership between the two companies and further study and advance the project, after the dissolution of the board in 2022 had stalled the project. In December 2023, FRA had announced that the Texas Bullet Train project was one of the corridors selected for the Corridor ID Program, making the project eligible to receive federal funding. Amtrak received a $63.9 million grant from FRA in mid-2024 to continue planning and development activities for the project under FRA's Corridor ID Program.[29] Since then, Amtrak has been managing the Texas Bullet Train project.

Potential Implementation Timeline

In Appendix F: Constructability Report of the EIS, Texas Central provides an abbreviated schedule for construction. In this proposed schedule, construction would take five years. However, additional planning, engineering work, and property acquisition is required. The project is currently progressing through the steps of FRA's Corridor ID Program, the structured planning framework through which passenger projects with federal funding are planned and implemented. Approximately 30% of the property needed for the railroad right-of-way has been acquired.[30] During a presentation at the 2024 Southwestern Rail Conference in Hurst, Texas, Andy Byford of Amtrak stated that the project still needs to secure funding and right of way, with no indication of a timeline.[31]

26 https://democrats-transportation.house.gov/imo/media/doc/Duhon%20Appendix.pdf.

27 https://www.railway-technology.com/news/texas-central-signs-bullet-train/.

28 https://www.houstonpublicmedia.org/articles/news/transportation/2024/09/03/498444/houston-dallas-high-speed-rail-corridor-million-federal-grant/.

29 https://www.kbtx.com/2024/09/05/amtrak-secures-64-million-grant-texas-high-speed-rail-project-possible-depot-brazos-valley/.

30 https://www.bloomberg.com/news/articles/2024-05-21/texas-high-speed-rail-plan-lurches-back-to-life-with-amtrak-s-help.

31 https://texasrailadvocates.org/share/swrc2024/slides/4.16%20245pm%20Andy%20Texas%20Rail%20Advocates%2004.15.2023%20(AB).pdf.

Potential Ridership and Revenue

There have been multiple ridership forecasts published for the proposed HSR service throughout the project timeline. he most recent, an independent review of the ridership forecast, performed by AECOM, was published by the FRA. in May 2020 in the FEIS's Appendix J: Forecasting Methodology Assessment. The most recent forecast was an independent review and reassessment built from methodology used in the previous June 2018 forecast. Refinements were made, with an updated travel survey. The results from this model are presented below.

Existing Travel Market. The study noted the following characteristics of existing passenger travel between Dallas and Houston:

- Approximately 16 million trips per year are made between North Texas and the Houston metropolitan area.
- More than 94% of these trips are made by personal automobile.
- Driving times between North Texas and Greater Houston is approximately 4 hours with nearly 30 minutes of rest stop time.
- Of the 16 million trips between Dallas and Houston, 0.9 million are made by air.

Future Travel Market. The study noted the following characteristics of projected future passenger travel between Dallas and Houston:

- The size of the travel market between North Texas and the Houston metropolitan area is estimated to increase at a rate of 2.5% per year until 2026, then 2.2% annually between 2026 and 2050.
- Just under 20 million trips per year between North Texas and the Houston metropolitan area are projected to be made in 2022.
- More than 34 million trips per year between North Texas and the Houston metropolitan area are projected to be made in 2050.
- The increase in projected travel demand between 2022 and 2050 is based on forecasts that estimate population in the North Texas-Houston corridor will grow at 1.5% per year through 2050, adding 10 million residents in the corridor through 2050.
- High-speed rail would save travelers 60 to 90 minutes of travel time when compared to a road or airline trip in the corridor.

Ridership projections. The study presented the following ridership forecasts for the Texas Bullet Train, based on the travel demand projections summarized above, combined with market research conducted to determine travelers' satisfaction with current transportation options between Dallas and Houston and the feasibility and willingness of travelers to consider a high-speed train for travel in the corridor:

- More than 6.5 million travelers are estimated to use the Texas Bullet Train by 2029, representing almost 29% of the end-to-end North Texas-Greater Houston travel market.
- Approximately 13,5 million travelers are estimated to use the Texas Bullet Train by 2050, representing almost 35% of the end-to-end North Texas-Greater Houston travel market.

Additional information from the initial 2016 market analysis appears in the Draft EIS Appendix F (Texas Central Railroad Conceptual Engineering Design Report).[32] Appendix F, Section 6.4.1 (Ridership Forecasts and Passenger

32 https://www.jbic.go.jp/ja/business-areas/environment/projects/pdf/60571_21.pdf.

Profiles) of the Draft EIS identified slightly more modest ridership projections for the proposed high-seed rail system than those presented on Texas Central's website, but also used a future year of 2040, not 2050:

- High-speed rail ridership in 2026 is projected to be 4.4 million passengers per year.
- High-speed rail ridership in 2040 is projected to be 7.2 million passengers per year.

Draft EIS Chapter 3, Section 3.11.5.2 (Build Alternatives)[33] provided the following additional information concerning projected travel market share:

- Among travelers currently making trips between Dallas and Houston, 89% use personal automobiles, 2% use buses, and 9% use airplanes.
- By 2043, the high-speed rail system is projected to be used for 21% of all trips made by the traveling public between the Dallas and Houston metropolitan areas. This market share capture would come from diversions of motor vehicle trips (16% of all Dallas-Houston passenger trips would be diversions from highway to rail) and diversions of air trips to rail (6%).

Texas Central has not disclosed potential revenue projections for the high-speed rail project, either in the Draft EIS or on its website. Revenue will be based on ticket sales, and Texas Central has stated that ticket prices will fluctuate depending on travel demand. Texas Central states on its website that the higher range of fares will be competitive with the cost of flying and the lower range of fares will be competitive with the cost of driving. There have been no new ridership projections publicly released since the 2020 Final EIS. As part of its preparation of a service development plan under FRA's Corridor ID Program, Amtrak will conduct updated, post-COVID assessments of the regional travel market and forecasts of ridership.

Projected Capital Costs, Subsidies, and Financing Strategies

While Texas Central previously stated it would privately finance the development, construction, and operation of the high-speed rail service and will not request capital grants or operating subsidies from the federal government or the State of Texas for the proposed service, the dissolution of the board and partnership with Amtrak has introduced public money for the final planning and engineering. The Draft EIS Appendix E, Socioeconomic and Community Facilities Technical Memorandum, contains construction cost estimates in the Final Draft Conceptual Engineering Design Documentation-FDCEv5 Transmittal for Capital Cost Estimate and Construction Schedule.[34] Texas Central estimates that capital construction costs for the high-speed rail system would range between $15 billion and $18 billion (in 2017 dollars). This estimate includes costs to construct the tracks, viaducts, embankments, maintenance facilities, power substations, and three passenger rail stations.

Table 3-3 summarizes the range of capital cost estimates for the Texas Bullet Train presented in Appendix E of the Draft EIS. These estimates include direct construction costs (such as construction labor and materials), indirect costs (such as engineering and environmental review, and administration), and between $2 billion and $3 billion for power systems and rolling stock. The analysis of construction costs assumed approximately 85% of the mean capital investment would represent construction and 15% would be applied to professional services.

33 https://www.fra.dot.gov/eLib/details/L19202.

34 https://www.fra.dot.gov/eLib/Details/L19230.

Table 3-3: Capital Cost Estimate for the Proposed Texas Bullet Train

Cost ($2017)	Low Estimate	High Estimate
Construction Costs (direct and indirect)	$13 billion	$15 billion
Train Control/Power Systems and Rolling Stock	$2 billion	$3 billion
Total	$15 billion	$18 billion

Source: Draft EIS, Appendix E, Socioeconomic and Community Facilities Technical Memorandum

The cost estimates in the table above do not include costs for land acquisition or real estate transaction fees. The cost of acquiring the additional parcels of right-of-way needed for the project is estimated to be at least $30 billion, according to an article in the Houston Chronicle.[35]

Texas Central's website states that the proposed high-speed rail system will cost more than $12 billion to construct.[36] Neither the Draft EIS nor the Texas Central website contain projections of operating costs. The current Corridor ID Program planning work being undertaken by Amtrak and FRA is expected to produce more up-to-date estimates of project implementation costs and operations and maintenance costs.

The company had planned to raise money for the project using a mix of debt and stock. The company intends to seek financing in phases, initially for permitting, then for construction. According to news reports from 2018, the company had secured options to acquire one-third of the land it needs to build the system and was negotiating for the rest.

In September 2018, Texas Central secured a $300 million loan for the project from the Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN) and the Japan Bank for International Cooperation (JBIC). JOIN was established in 2014 as a public-private partnership backed by the Japanese government to pursue private investment opportunities in overseas infrastructure. JOIN not only provides financing but also arranges for Japanese companies to provide technology, equipment, or other services for the venture. According to an article in the *Dallas Morning News*, the loan will be used for permitting, design, and engineering, and provides Texas Central with the remainder of committed funding for the construction of the system.[37] In 2015, JOIN had committed $40 million to become an ownership investor in Texas Central. Texas Central has stated that the majority of the project's investment partners are Texas investors. Since the publication of the last Texas Rail Plan in 2019, no major announcements have been made regarding a funding package to complete the project.

Analysis of Interconnectivity of Proposed New Passenger Rail System

The proposed Texas Bullet Train would not share any existing tracks or stations with currently operating intercity passenger or commuter rail services in Texas. Access to the highway and roadway network, and access to the public transportation network, were two key criteria used in selecting the proposed locations for the high-speed rail system's three train stations, according to the Draft EIS. The designs for each of the three high-speed rail stations include infrastructure options that would enable passengers to make connections with local transit systems, and also include

35 https://www.houstonpublicmedia.org/articles/infrastructure/2024/04/17/483907/houston-to-dallas-high-speed-rail-project-seems-to-be-gaining-momentum/.

36 https://www.texascentral.com/facts/.

37 https://www.dallasnews.com/news/transportation/2018/09/13/texas-central-lands-300-million-loanfor-dallas-houston-bullet-train- project.

pickup/drop-off areas for taxi and ride-share services, as well as parking garages. Conceptual renderings in the Draft EIS of the Dallas and Houston terminals also show spaces identified for car rental counters.

Texas Central announced in January 2018 that it had selected a site for its Dallas passenger rail terminal. The site is located south of the Kay Bailey Hutchison Convention Center, in the Cedars neighborhood just south of downtown Dallas and Interstate 30. This area had been identified in the Draft EIS as the preferred Dallas terminal location. Appendix G of the Draft EIS includes conceptual renderings of the proposed station that show a pedestrian bridge connecting to a parking garage and bus drop-off area along South Austin Street.[38] The press release announcing the selection of the station site stated that conceptual plans for the station had been developed that included pedestrian bridges to parking lots, and that the pedestrian bridges could be further extended to provide convenient connections to DART light rail trains and buses.[39] DART Red and Blue line light rail trains stop at the Convention Center, as well as a station in the Cedars neighborhood along Belleview Street approximately five blocks from the proposed high-speed rail terminal site. The design of the Dallas terminal includes a tail track, which is intended to provide a potential direct entry for DART light rail trains or Trinity Railway Express commuter trains, should either system decide in the future to extend service or relocate to the high-speed rail terminal. Texas Central also has stated it will improve roadways near the station site to ease road congestion and improve traffic flow.

One month after announcing the selected site for its passenger rail terminal in Dallas, Texas Central announced it had selected a preferred site for its passenger rail terminal in Houston. The location selected is the Northwest Mall, near the interchange of Interstate 610 and US Highway 290. This site was one of three options identified in the Draft EIS for the location of the Houston terminal.

According to the press release announcing the station location, Texas Central has reached an agreement with the property owners to redevelop the mall site as a multimodal high-speed rail terminal and transit hub, if the high-speed rail project advances.[40] Appendix G of the Draft EIS includes conceptual renderings of the proposed station that show a pedestrian bridge connecting to a parking garage and automobile pickup/drop-off locations, but no identified locations for bus or transit connections. Texas Central had previously signed a memorandum of understanding with the City of Houston to ensure that the high-speed rail terminal would have a "high level of integration with local transit systems."[41] In addition, the agreement with the City requires Texas Central to develop plans for multimodal connections between the high-speed rail station and major employment and recreation centers in Houston, and also work with Houston METRO and other stakeholders on future plans for a potential commuter rail service in the Hempstead Corridor extending northwest of the city.

At the proposed Brazos Valley station along State Highway 30 near Roans Prairie, Texas Central plans to have a connecting shuttle service to Texas A&M University in College Station. Appendix G of the Draft EIS includes conceptual renderings of the proposed station that show a shuttle bus drop-off location at the north side of the station facility.

Texas Central plans to offer through-ticketing and connecting shuttle service for rail passengers making trips that use both Amtrak intercity passenger rail services and the Texas Bullet Train. Under an agreement with Amtrak announced by Texas Central on May 4, 2018, passengers will be able to use the Amtrak reservation system to purchase tickets for trips that have travel segments on Amtrak's national passenger rail network as well as the Texas Central high-speed

38 https://www.fra.dot.gov/eLib/details/L19243.

39 http://www.texascentral.com/wp-content/uploads/2018/01/North-Texas-Station-Press-Release-Texas-Central.pdf.

40 http://www.texascentral.com/wp-content/uploads/2018/02/Houston-Bullet-Train-Station-release_01052018.pdf.

41 http://www.texascentral.com/wp-content/uploads/2017/08/Houston_and_TC_MOU_Release_20170817.pdf.

rail system.[42] Dallas Union Station, used by Amtrak and Trinity Railway Express, is approximately 1 mile from the proposed site of the Texas Central Dallas rail terminal. Amtrak's passenger rail station in Houston is approximately 7 miles from the proposed Texas Central rail terminal at the Northwest Mall. Texas Central has stated it will provide a connecting shuttle service between the Amtrak and Texas Central stations in Dallas and Houston for passengers with through tickets.

The proposed Texas Central station at the Cedars in Dallas would not preclude an extension of high-speed rail tracks west to Fort Worth. The NCTCOG has been conducting planning work for a dedicated high-speed rail alignment that would enable Texas Central bullet trains from Houston to Dallas to then continue their journey west to Fort Worth. NCTCOG had initially studied a high-speed rail alignment that would extend west from the proposed Texas Central station in Dallas on an elevated structure through downtown. However, recent multi-billion-dollar land development efforts to construct a new convention center and a nearby 25-acre mixed-use development prompted the Dallas City Council to pass a resolution in June 2024 opposing an elevated rail line through the Central Business District until the completion of an economic impact study.[43] A month later, NCTCOG presented an alternate alignment for the proposed high-speed rail alignment to Fort Worth that would avoid downtown Dallas but still connect to the Texas Central alignment at the Dallas station site in the Cedars. [44] The City of Dallas is also working with NCTCOG on potential alternatives for providing a connection from the proposed Dallas high-speed rail station to downtown by the new convention center. Additional information on the Dallas to Fort Worth high-speed rail alignment appears later in Chapter 3.

Analysis of Short-Term and Long-Term Effects of Proposed Passenger Rail System on State and Local Road Connectivity

As detailed in the Draft EIS, most of the high-speed rail line will be built one of two ways: as an at- grade alignment where the rail is located on an embankment and separated from other transportation modes, or as an elevated alignment where the rail is located on an elevated viaduct structure supported by piers and beams. Preliminary engineering plans in the Draft EIS show that the rail line when on an embankment would have a maximum height of approximately 50 feet, and when on an elevated structure would have a maximum height of approximately 70 feet. All at-grade roadway crossings of the alignment would be replaced by grade-separated crossings, following one of three methods: Road Under Rail (the high-speed rail line would pass above existing or proposed roadways), Road Over Rail (new or rerouted roads would pass above the proposed high-speed rail line), or Reroute (the roadway would be rerouted to eliminate the crossing, and either use an alternative crossing at a different location, or construct connections to other existing or proposed roadways that would cross the rail alignment.)

Appendix F of the Draft EIS contains a Basis of Design that guided the Final Draft Conceptual Engineering. The Basis of Design established the following clearance guidelines:

- Road Over High-Speed Rail (HSR): A minimum overhead clearance from the track of 21 feet, 2 inches would be used, and a typical vertical clearance above the high-speed rail track to the underside of the road structure would be 24 feet, 6 inches.

42 http://www.texascentral.com/wp-content/uploads/2018/05/Texas_Central_Amtrak_release_05042018.pdf.

43 https://www.hsrail.org/blog/dallas-city-council-passes-resolution-opposing-high-speed-rail/.

44 https://dallasexpress.com/city/bullet-train-still-on-track-to-come-dallas-what-you-need-to-know/.

- HSR Over Road: Vertical clearance from the roadway surface to the underside of the high-speed rail structure would be a minimum of 16 feet, 6 inches, and a minimum of 22 feet for Interstate highways, in accordance with the current version of TxDOT Highway Design Standards.

Conceptual engineering drawings located in Appendix G of the Draft EIS indicate that the bridge piers supporting rail bridges above roadways would have a minimum clearance of 30 feet beyond the edge of each roadway shoulder. This clearance is expected to be sufficient to accommodate oversized vehicles on roadways beneath the proposed rail lines.[45]

The Draft EIS states that no public roads would be closed as a result of the project, although some private roads would be closed, and some public roadways would be reconfigured following TxDOT and local regulations.

Section 3.5.11.2 of the Draft EIS (Build Alternatives) describes the project's overall impacts on road connectivity. According to the Draft EIS, approximately 50% of the roadways intersecting the proposed high-speed rail route would be located beneath an elevated viaduct segment of the rail line. Of those crossings, approximately 69% would require limited road modifications owing to the height of the viaduct. Specific road crossings that would require modification are discussed in detail by county in Chapter 3 of the Draft EIS. Reroutes to existing roads would result in the addition of approximately 18 miles of public roads. Additionally, roads around the terminal stations may require changes to accommodate new traffic patterns. Table 3-4 summarizes the roadway and other transportation impacts of the High-Speed Rail (HSR) Preferred Build Alternative (Alternative A).

Table 3-4: Summary of Transportation Impacts of HSR Preferred Build Alternative (Alternative A)

Impact	Number
Roads Permanently Impacted	240
Length Added to Public Roads (miles)	18
Length Removed from Public Roads (miles)	11
Freight Rail Crossings	34
Impacts to Airports	1

Source: Draft EIS, Chapter 3, Section 3.11.7, Build Alternatives

Analysis of the Effect of the Proposed Passenger Rail System on Statewide Transportation Planning

Section 3.2.3.3.2 (Vehicle Emission Reductions) of the Draft EIS includes calculations of the reduction in long-distance personal vehicle use if the high-speed rail project were built. The proposed service is projected to remove 14,630 vehicles per day, or 5.3 million cars per year, on Interstate 45 (I-45) between Dallas and Houston in the year 2035, representing about 14% of the projected average daily traffic volume of 106,475 in the Dallas-Houston corridor for that year. FRA concluded from this analysis that the "mode shift would not be assumed to constitute the majority of

45 https://www.fra.dot.gov/eLib/details/L19234#p1_z5_gD_IRE_y2017_m12.

travel along I-45." Appendix F of the Draft EIS includes a traffic analysis for each terminal station. Table 3-5 presents the mode split assumptions for the system's terminal stations.

Table 3-5: Mode Split Assumptions for Terminal Stations

Station	Drive and Park	Rental Car	Pickup/Drop-off	Taxi	Bus/Shuttle	Walk/Bike/Other
Dallas	25%	14%	32%	21%	4%	4%
Houston	32%	13%	31%	18%	2.5%	3.5%

Source: Draft EIS, Appendix F, TCRR Conceptual Engineering Design Report

Based on this modal split analysis, the Draft EIS projects an average of 1,481 vehicle trips per hour would be made to and from the Dallas high-speed rail terminal in 2040. Approximately 47% of trips to and from the Dallas terminal would be made to/from Downtown Dallas (23%) or to Tarrant County (24%). In Houston, the high-speed rail terminal is projected to generate an average of 1,381 vehicle trips per hour. Approximately 77% of trips to and from the Houston terminal would be made to/from Harris County. Roadway access improvements for each terminal station are identified to accommodate the anticipated increases in local road traffic around station areas and mitigate impacts to existing traffic. The types of roadway modifications recommended include: the addition of new turn lanes or dual turn lanes at intersections; replacement of through lanes with turn lanes at intersections; elimination of left-turn options at certain high-traffic intersections where alternate left-turn routes exist nearby and demand for left-hand turns is low; modification of traffic lights to add a left-turn-only signal timing; conversion of intersections with two-way stop signs to four-way stop signs; and addition of acceleration and deceleration lanes on State Highway 30 at the entrance to the Brazos Valley station. Appendix F of the Draft EIS also contains recommendations for phased improvements at specific intersections near each terminal station.

Future impacts on planning, maintenance and construction activities will depend on the terms of crossing agreements reached between governmental entities and Texas Central. TxDOT will develop crossing agreements to ensure that future roadway expansion plans are incorporated into Texas Central's design and that the proposed rail line will not impact maintenance activities. Currently no crossing agreements have been reached between other governmental entities and Texas Central so future impacts to non-state roads cannot be determined.

Detailed Ridership Projections for the Proposed Passenger Rail System Developed in Previous TxDOT Studies

TxDOT has previously prepared Statewide Ridership Analysis Reports to provide a high-level of forecasted ridership and cost effectiveness for various potential passenger rail corridors in the state. These reports were prepared to determine which corridors might warrant further analysis, should funding become available, and what level of service might be supported by the different corridors. TxDOT issued a ridership analysis using Statewide Analysis Model Version 2.5 in December 2013.[46] The report includes projections for the Dallas-Houston corridor, under a passenger rail service plan whereby trains would operate at speeds between 125 and 250 mph, and provide up to 20 trips per day in each direction. Table 3-6 summarizes the primary findings from that analysis for the Dallas-Houston corridor (upfront capital cost, annual operation and maintenance cost, and projected annual ridership in 2035). The forecasts

46 https://ftp.dot.state.tx.us/pub/txdot-info/rail/rail-ridership-report-1213.pdf.

presented below were developed under an assumption that the Dallas-Houston service would be operated as a standalone high-speed passenger rail corridor without additional, connecting high-speed route segments to other cities such as San Antonio.

Table 3-6: Forecasted 2035 Dallas-Houston Intercity Passenger Rail Ridership Summary Results

Corridor	Service Type	Upfront Capital Cost	Annual O&M Cost	2035 Annual Ridership
Dallas-Houston	Core Express (HSR)	$16.8 billion	$266 million	1.5 million-5.7 million

Note: Range of ridership is forecasted with a 70% probability of occurrence.
Source: Statewide Ridership Analysis Report, Statewide Analysis Model – Version 2.5 (SAM-V2.5), December 2013.

Ridership Statistics for Existing Passenger Rail System in the State

Existing intercity rail passenger service in Texas is provided by three Amtrak routes. The *Heartland Flyer* is a daily intercity passenger train that operates once per day in each direction between Oklahoma City, Oklahoma, and Fort Worth, Texas. The service is operated by Amtrak under contract to the states of Texas and Oklahoma and receives financial operating support from both states. The schedule is timed to allow transfers to the *Texas Eagle* in each direction at Fort Worth. Two stations within Texas are served by the *Heartland Flyer*.

The other two trains, the *Texas Eagle* and *Sunset Limited*, are part of Amtrak's long-distance service network and are funded by Congress. The *Texas Eagle* operates daily in each direction between Chicago, Illinois, and San Antonio, Texas. At San Antonio, a coach and a sleeping car from the *Texas Eagle* connect with the *Sunset Limited*, providing a through connection to the *Sunset Limited* for continued travel to Los Angeles, California.

The *Texas Eagle* serves twelve stations within Texas. The *Sunset Limited* operates three days per week in each direction between New Orleans, Louisiana, and Los Angeles, California, serving seven Texas stations. Table 3-7 provides an overview of the ridership results for Amtrak's three routes serving Texas from Fiscal Year (FY) 2019 through FY 2023.

Table 3-7: Amtrak Riders on Routes Serving Texas FY 2019-2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Heartland Flyer	68,744	41,801	42,299	63,052	72,379
Texas Eagle	321,694	196,078	151,393	253,491	294,439
Sunset Limited	92,827	55,118	57,562	73,904	77,288

Source: Amtrak Market Research and Analysis Department.

Potential New Intercity Passenger Routes and Services

This section summarizes the studies and analysis of potential new intercity passenger rail routes and services undertaken within the past decade at the federal, state, and local levels. Between 2009 and 2011, TxDOT received federal grant funding under the HSIPR program to assist FRA and other stakeholders in the development of planning documents for two route segments of the federal South Central High-Speed Rail Corridor, linking El Paso with Oklahoma City and Little Rock: the Texas-Oklahoma Passenger Rail Study and the Dallas-Fort Worth Core Express Alternatives Analysis. Both studies have been completed and are summarized below.

Since the release of those studies, additional planning work was carried out by regional and local public agencies in two corridors: Fort Worth-Dallas and Fort Worth-San Antonio. The IIJA established new federal funding programs to plan and develop new or expanded intercity passenger rail corridors across the United States. The Corridor ID Program was created to be the primary means of expanding intercity passenger rail services with federal financial support. TxDOT has received Corridor ID program funding to prepare service development plans for two new intercity passenger rail corridors in the Texas Triangle, Dallas/Fort Worth-Houston and Houston-San Antonio. TxDOT intends to apply for additional federal Corridor ID Program funding for service development planning in the Texas Triangle's third corridor, Dallas/Fort Worth-San Antonio. Other public entities also received Corridor ID Program funding to plan other intercity passenger rail routes in Texas. These entities are Amtrak, NCTCOG, and the Southern Rail Commission.

As stated previously, TxDOT has limited funding eligible to apply to rail construction. Most passenger rail concepts would require a combination of private, federal, and state legislative funding decisions if they were advanced for implementation.

Texas Triangle Intercity Passenger Rail Corridors

With funding from FRA's Corridor ID Program, TxDOT is undertaking three studies to assess the feasibility of implementing short-distance intercity passenger rail service on three corridors serving the Texas Triangle. The Texas Triangle, anchored by the Dallas-Fort Worth Metroplex in the north, San Antonio in the southwest and Houston to the southeast – including College Station and Austin – is one of the eleven designated megaregions of the United States.

The Texas Triangle has a population of more than 18 million residents, comprising two-thirds of the population of Texas, and generates 77% of the state's economic output.[47] The region has experienced unprecedented growth in the last decade, with over 80% of Texas' new residents moving to this area.

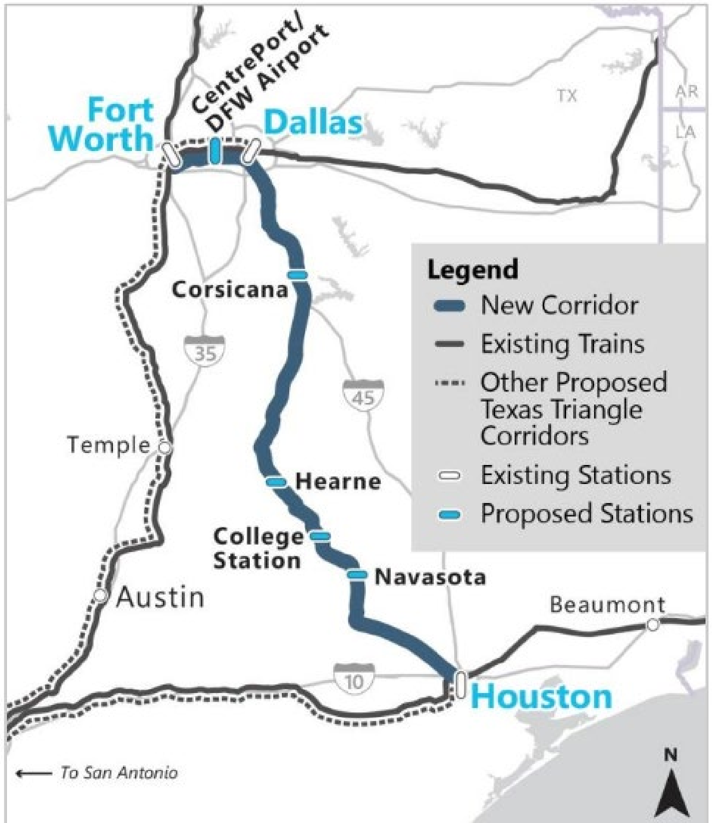
TxDOT was awarded FY 2022 Corridor ID Program funding to prepare service development plans for two corridors: Dallas/Fort Worth to Houston and Houston to San Antonio. TxDOT intends to apply for future Corridor ID funding to prepare a service development plan for the third corridor: Dallas/Fort Worth to San Antonio. Additional information on each corridor is presented below.

Dallas/Fort Worth to Houston

The Dallas-Fort Worth – Houston Corridor connects the two biggest metropolitan areas in Texas and two of the ten largest metropolitan areas in the nation.

47 https:/www.austincapitaladvisors.com/texas-triangle.

Figure 3-5: Potential DFW – Houston Corridor



Source: TxDOT

Dallas and Fort Worth are the Corridor's northern anchors and comprise the fourth-largest metropolitan area in the U.S. The region contains the headquarters of multiple Fortune 500 companies such as AT&T, and draws travelers for tourism, sports, and events. Houston is the fifth-largest metropolitan area in the U.S., the energy capital of the world, and has one of the busiest seaports in the country. In between, the corridor serves College Station, home to the main campus of Texas A&M University. The corridor has not had passenger rail service since 1995, when Amtrak discontinued the Dallas – Houston section of the long-distance *Texas Eagle* train. Amtrak currently provides service in the corridor with an Amtrak Thruway bus from Houston that connects with the Chicago-San Antonio *Texas Eagle* at Longview. Figure 3-5 shows a map of the alignment previously used by long-distance Amtrak trains in this corridor.

Although a passenger rail operator has not been selected, Amtrak identified the Dallas-Fort Worth – Houston Corridor as a candidate for service expansion in the Amtrak Connects US plan, which was released in 2021.[48] The Amtrak plan had contemplated operating three daily round trips between Fort Worth and Houston by way of Dallas, with intermediate stations at DFW Airport, Corsicana, Hearne, College Station, and Navasota, as shown in Figure 3-5 and Table 3-8. Locations that currently do not have an Amtrak passenger station are identified in the table below as proposed stations.

48 https://media.amtrak.com/wp-content/uploads/2021/05/Amtrak-2021-Corridor-Vision-May27_2021.pdf.

Table 3-8: Potential Dallas/Fort Worth – Houston Corridor Service Characteristics

Approx. Miles	Potential Stations	Potential Frequency	Estimated Trip Time (hr:min)
297	Fort Worth, CentrePort/DFW Airport (proposed), Dallas, Corsicana (proposed), Hearne (proposed), College Station (potential) Navasota (proposed), Houston	3 daily round trips	5: 33 (Fort Worth-Houston) 4:30 (Dallas-Houston) 1:03 (Fort Worth-Dallas)

Source: TxDOT

Although the Amtrak Connects US vision had proposed using the existing UP rail line between Dallas and Houston that previously hosted Amtrak service, and the existing TRE commuter rail corridor between Fort Worth and Dallas that currently hosts Amtrak's *Texas Eagle*, TxDOT anticipates that the service development planning process of the Corridor ID Program may also include the evaluation of additional route alternatives.

Houston to San Antonio

The Houston – San Antonio Corridor connects two of the three biggest metropolitan areas in Texas and two of the 30 largest metropolitan areas in the United States.

Figure 3-6: Potential Houston – San Antonio Corridor

Source: TxDOT

Houston is the fifth-largest metropolitan area in the U.S., the energy capital of the world, and has one of the busiest seaports in the country. San Antonio is the second-largest city in the state, and a regional economic, manufacturing, and defense center; it also has two of the most visited attractions in Texas, the Alamo and the Riverwalk. The corridor is linked by Interstate 10. Amtrak currently provides long-distance passenger train service in the corridor with the *Sunset Limited*, which operates three days per week in each direction between New Orleans and Los Angeles and makes no intermediate stops between Houston and San Antonio. Figure 3-6 shows a map of the alignment currently used by long-distance Amtrak trains in this corridor.

Although a passenger rail operator has not been selected, Amtrak identified the Houston – San Antonio Corridor as a candidate for service expansion in the Amtrak Connects US plan, which had contemplated operating two daily round

trips between Houston and San Antonio serving intermediate stations at Rosenberg, Flatonia, and Seguin, as shown in Figure 3-6 and Table 3-9. Locations that currently do not have a passenger station are identified in the table below as proposed stations.

Table 3-9: Potential Houston – San Antonio Corridor Service Characteristics

Approx. Miles	Potential Stations	Potential Frequency	Estimated Trip Time (hr:min)
210	Houston, Rosenberg (proposed), Flatonia (proposed), Seguin (proposed), San Antonio	2 daily round trips	4:45

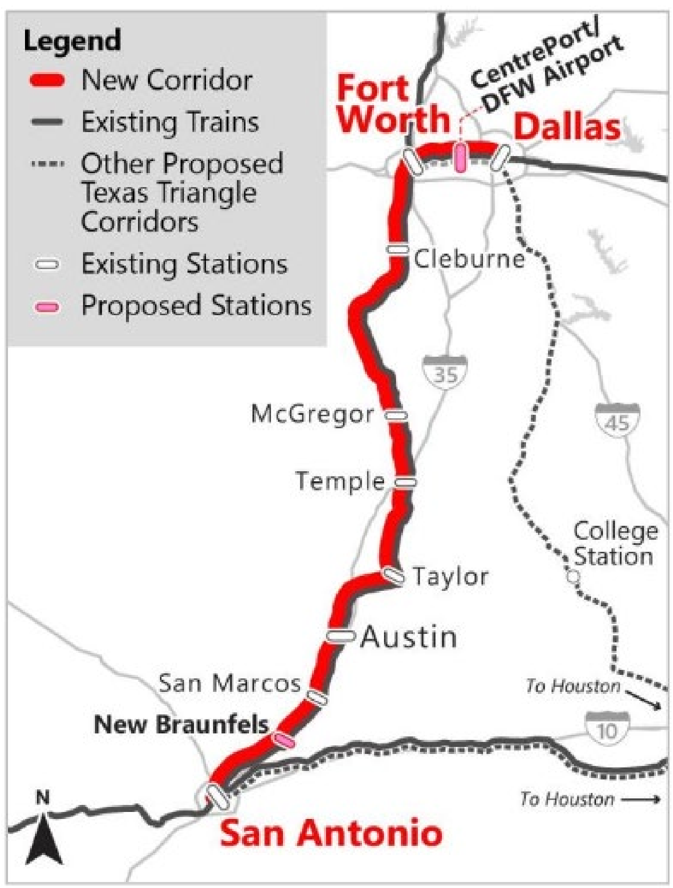
Source: TxDOT

The UP route used today by the Amtrak *Sunset Limited* is the only existing rail line that connects Houston and San Antonio.

Dallas/Fort Worth to San Antonio

With the state capital of Austin in the middle, the Dallas/Fort Worth – San Antonio Corridor serves three of the four biggest metropolitan areas in Texas and three of the 30 largest metropolitan areas in the United States.

Figure 3-7: Potential DFW – San Antonio Corridor



Source: TxDOT

The Dallas-Fort Worth – San Antonio Corridor links six of the eight largest cities in the Texas Triangle. San Antonio is the second-largest city in the state, with a population of approximately 1.4 million in 2020; Dallas is third-largest, with a population of roughly 1.3 million in 2020; and Austin and Fort Worth are fourth and fifth largest, respectively, with populations exceeding 0.9 million. In addition to being the state capital, Austin is home to multiple technology companies and is renowned as the "live music capital of the world." The corridor is linked by Interstate 35, one of the busiest and most congested highways in the U.S.

Amtrak currently provides long-distance passenger train service in this corridor with the *Texas Eagle*, which operates daily in each direction between Chicago and San Antonio, with connecting coach and sleeping car service between San Antonio and Los Angeles provided three days per week on the *Sunset Limited*. Figure 3-7 shows a map of the alignment currently used by long-distance Amtrak trains in this corridor.

Although a passenger rail operator has not been selected, Amtrak identified the Dallas/Fort Worth – San Antonio Corridor as a candidate for service expansion in the Amtrak Connects US plan, which had contemplated operating two daily round trips between Dallas and San Antonio, serving intermediate stations at DFW Airport, Fort Worth, Cleburne, McGregor, Temple, Taylor, Austin, San Marcos, and New Braunfels, as shown in Figure 3-7 and Table 3-10. Locations that currently do not have an Amtrak passenger station are identified in the table below as proposed stations.

Table 3-10: Potential Dallas/Fort Worth – San Antonio Corridor Service Characteristics

Approx. Miles	Potential Stations	Potential Frequency	Estimated Trip Time (hr:min)
310	Dallas, CentrePort/DFW Airport (proposed), Fort Worth, Cleburne, McGregor, Temple, Taylor, Austin, San Marcos, New Braunfels (proposed), San Antonio	2 daily round trips	7:03 (Dallas – San Antonio) 1:03 (Dallas – Fort Worth) 4:23 (Fort Worth – Austin) 1:37 (Austin – San Antonio)

Source: TxDOT

Although the Amtrak Connects US vision had proposed using the existing rail lines operated by TRE (Dallas to Fort Worth), BNSF (Fort Worth to Temple), and UP (Temple to San Antonio) that currently host the *Texas Eagle*, TxDOT anticipates that the service development planning process of the Corridor ID Program may also include the evaluation of additional route alternatives.

Texas-Oklahoma Passenger Rail Study

The Texas-Oklahoma Passenger Rail Study is an evaluation of a range of passenger rail service options in an 850-mile corridor roughly paralleling Interstate 35 (I-35) from Oklahoma City to South Texas.[49] The study concluded in November 2017 after the completion of a service-level Tier 1 Final Environmental Impact Statement (FEIS), Record of Decision (ROD), and Service Development Plan. The $14 million study was prepared by TxDOT and FRA, and funded by a federal HSIPR grant ($5.6 million), Texas General Revenue funds ($1.4 million), the North Central Texas Council of Governments ($1.4 million), the Texas and Oklahoma Departments of Transportation ($2.6 million), and the Federal Highway Administration ($3 million). In addition to the agencies that provided funding for the study, transit service

49 http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html.

providers, railroads, metropolitan planning organizations, cities and counties, and community members were engaged throughout the evaluation process.

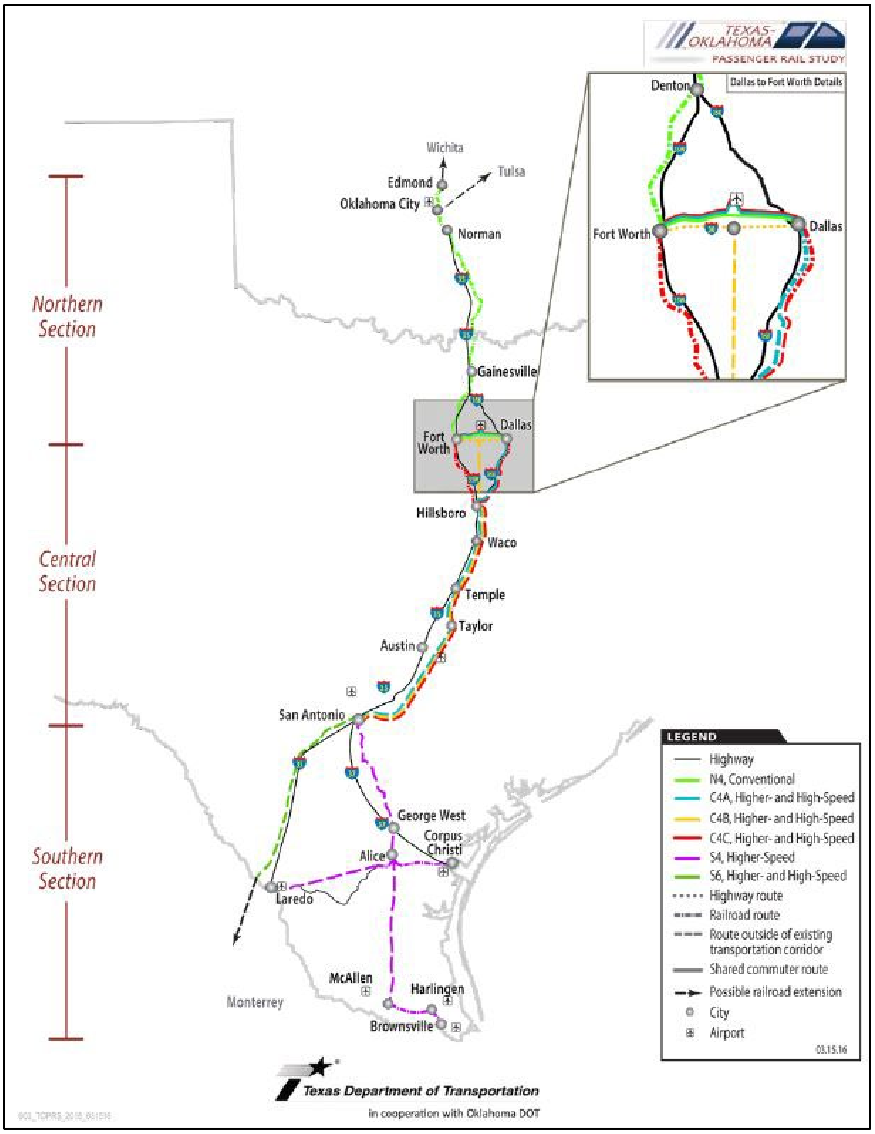
The study documents how passenger rail could serve Texas communities and the benefits and impacts of different passenger rail choices. Preferred service alternatives were developed for the 850-mile corridor as a whole as well as three discrete segments of the corridor:

- Northern: Oklahoma City to Dallas/Fort Worth
- Central: Dallas/Fort Worth to San Antonio
- Southern: San Antonio to Rio Grande Valley/Corpus Christi/Laredo

Because the study was federally funded, a service-level EIS was required to comply with the National Environmental Policy Act (NEPA) and concluded with the issuance of a combined FEIS/ROD.[50] The service-level EIS documents the impacts, benefits, and costs of each passenger alternative compared to a No Build alternative. Figure 3-8 shows the 850-mile rail corridor analyzed in the study.

50 https://cdxnodengn.epa.gov/cdx-enepa-II/public/action/eis/details?eisId=241034.

Figure 3-8: Texas-Oklahoma Passenger Rail Study Corridor



Source: Texas-Oklahoma Passenger Rail Study Combined FEIS and ROD

Much of the growth occurring in Texas is along the already-congested I-35 corridor (86% of all Texans live along or just east of the I-35 corridor).[51] While TxDOT continues to explore roadway improvements in the corridor to improve mobility and the economy, other options, such as passenger rail service, could reduce demand on some of the state's most congested roadways. Through the Texas-Oklahoma Passenger Rail Study,[52] TxDOT studied how passenger rail service could fit in this travel corridor, if delivered efficiently, reliably, comfortably, and with trip times comparable to or faster than automobiles. The study recommended the following service options, based on projected ridership, capital costs, and impacts:

Northern Section (Oklahoma City to Dallas/Fort Worth) – Conventional Rail. The study recommended that service in this section be provided by conventional diesel-powered trainsets operating on shared-use passenger and freight tracks at top speeds of 79 to 90 mph. The study proposed increasing service frequencies along the route to between three and six daily round trips, extending the route north to Edmond on BNSF trackage, and extending the

51 https://ftp.dot.state.tx.us/pub/txdot/commission/2017/1025/2-presentation.pdf.

52 http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html.

route east from Fort Worth to Dallas using the Trinity Railway Express commuter line to provide travelers in Oklahoma with a one-seat ride to both Fort Worth and Dallas. Two or three of the round trips were recommended to operate as "express" trains, making roughly seven stops, with the remaining "local" trains making as many as 12 stops. The Draft EIS estimated that approximately $1.8 billion (in 2013 dollars) of infrastructure improvements would be needed to implement the recommended service alternative.[53] The study projected the service would attract 700,000 rail passengers per year by 2035, which would be a 500% increase in mode share over the 2035 No Build Alternative.

Central Section (Dallas/Fort Worth to San Antonio) – High-Speed Rail. The study recommended that service in this section be provided by electric-powered high-speed trainsets operating on a dedicated high-speed rail right of way at top speeds of 220 to 250 mph. The study identified three possible alignment options between Dallas/Fort Worth and Hillsboro, and then proposed a common, dedicated high-speed rail alignment south of Hillsboro to San Antonio located outside of existing highway and rail corridors to enable trains to achieve the recommended maximum operating speeds. The study's proposed conceptual alignment between Hillsboro and San Antonio would follow the same general trajectory of existing BNSF and UP freight rail lines in order for high-speed trains to serve intermediate cities such as Waco, Temple, Taylor, and Austin, The study recommended operating 12 to 20 round trips per day, with a mix of "express" trains making six stops and "local" trains making eight or nine stops depending on the alignment option. The Draft EIS estimated that property and construction costs would total nearly $6 billion (in 2013 dollars) to implement the recommended service alternative. Depending on the alignment option, the study projected that a high-speed rail service in the corridor would attract 5 million to 8 million riders per year by 2035, representing approximately 12 to 20% of all passenger travel in the corridor (air, auto, bus, and rail), and an increase in mode share of 6,000 to 9,000% over the 2035 No Build Alternative.

Southern Section (San Antonio to South Texas) – Higher-Speed Rail, with a High-Speed Rail Option to Monterrey, Mexico. The study recommended that service in this section be provided by high-performance diesel-powered trainsets operating at top speeds of 110 to 125 mph on three routes: Laredo-Alice-Corpus Christi, San Antonio-Alice-McAllen-Brownsville, and San Antonio-Laredo with an extension to Monterrey, Mexico. Monterrey is a leading industrial and corporate center in Mexico with strong historic, economic, and social ties to Texas. The direct San Antonio-Laredo route was recommended only if the Monterrey connection is also built, with options to provide service using either high-performance diesel trains at up to 125 mph or electric-powered high-speed trains on a dedicated alignment with top speeds of 220 to 250 mph. Both options were recommended because it was not known which speed and technology would be more compatible with the connecting infrastructure in Mexico. The north-south and east-west passenger routes intersecting at Alice are proposed to use a combination of existing freight rail corridors (but with separate passenger tracks adjacent to the existing freight tracks), abandoned rail lines, and new alignments. The direct San Antonio-Laredo route is proposed to use a new alignment outside existing transportation corridors to a station near the Laredo-Columbia Solidarity Bridge, which crosses the Rio Grande north of Laredo.

The study recommended operating four to six round trips per day from San Antonio south via Alice to Laredo or Corpus Christi, with a connecting feeder service from Alice to Brownsville. Service on the direct San Antonio-Laredo-Monterrey route is assumed to have four to six diesel-powered round trips per day, with no intermediate stops between San Antonio and Laredo, but if electrified high-speed rail service to Monterrey were built, frequencies could rise to between eight and 12 round trips per day. The Draft EIS estimated that property and construction costs would total approximately $2 billion to $3 billion (in 2013 dollars) to implement service on the north-south and east-west

53 https://www.fra.dot.gov/Elib/Document/16565.

routes through Alice, and an additional $0.9 to $1.3 billion to implement direct service between San Antonio and Laredo. The study projected that the San Antonio-Brownsville/Laredo-Corpus Christi service would attract more than 600,000 rail passengers per year by 2035, of which approximately 42% would divert from highway travel and 43% would divert from local air travel. Direct rail service between San Antonio and Laredo on the route to Monterrey is projected to attract nearly 60,000 passengers per year by 2035 with a higher-speed diesel-powered service, and more than 138,000 passengers per year with a more frequent, electrified high-speed rail service.

TxDOT and FRA decided to recommend different alternatives for each geographic region because the study did not identify a single service type (conventional, higher-speed, or high-speed rail) that could optimally or feasibly serve all three geographic sections. However, the study noted that the alternatives recommended would not preclude the establishment of shared station facilities, timed transfers, or other types of connectivity between the services in the three geographic sections, although the study does not assume or call for such connectivity either. Future coordination with Mexico also would be required to establish protocols for trans-border passenger rail service.

With the conclusion of the study, regional and local groups began to pool their resources for the continued development of specific sections of the Texas-Oklahoma Passenger Rail Study's study area. Efforts to continue the planning work for high-speed rail options from Fort Worth to Dallas and Fort Worth to Austin are discussed in the following sections.

Dallas to Fort Worth High-Speed Rail Studies

The ongoing development of the proposed Texas Central high-speed rail project, and the FRA Record of Decision for the Texas-Oklahoma Passenger Rail Study, which recommended a high-speed rail alternative between Dallas/Fort Worth and San Antonio, has identified a need to connect the two potential high-speed systems with a dedicated high-speed rail route between the cities of Dallas and Fort Worth.

Today's intercity passenger trains and commuter trains use the Trinity Railway Express corridor between Dallas and Fort Worth. This corridor is a likely alternative to host additional intercity passenger trains and commuter train frequencies in the future. However, linking the proposed Texas Central high-speed rail system at Dallas with any future high-speed rail line that follows the I-35 corridor south of Fort Worth will require a dedicated, grade-separated alignment between the two cities. This section summarizes the recent planning efforts for a new high-speed rail alignment between Dallas and Fort Worth.

Fort Worth to Dallas High-Speed Rail Corridor in Corridor ID Program

The NCTCOG has been the lead agency for the development of feasibility studies and environmental evaluations of a potential high-speed rail alignment between Dallas and Fort Worth. High-speed rail between Dallas and Fort Worth has been included in NCTCOG's regional transportation plans since the 2011 release of Mobility 2025: The Metropolitan Transportation Plan for North Central Texas in 2011. Subsequently, high-speed rail has been included in NCTCOG's Mobility 2035, Mobility 2040, Mobility 2045, and Mobility 2045 Update regional transportation plans.

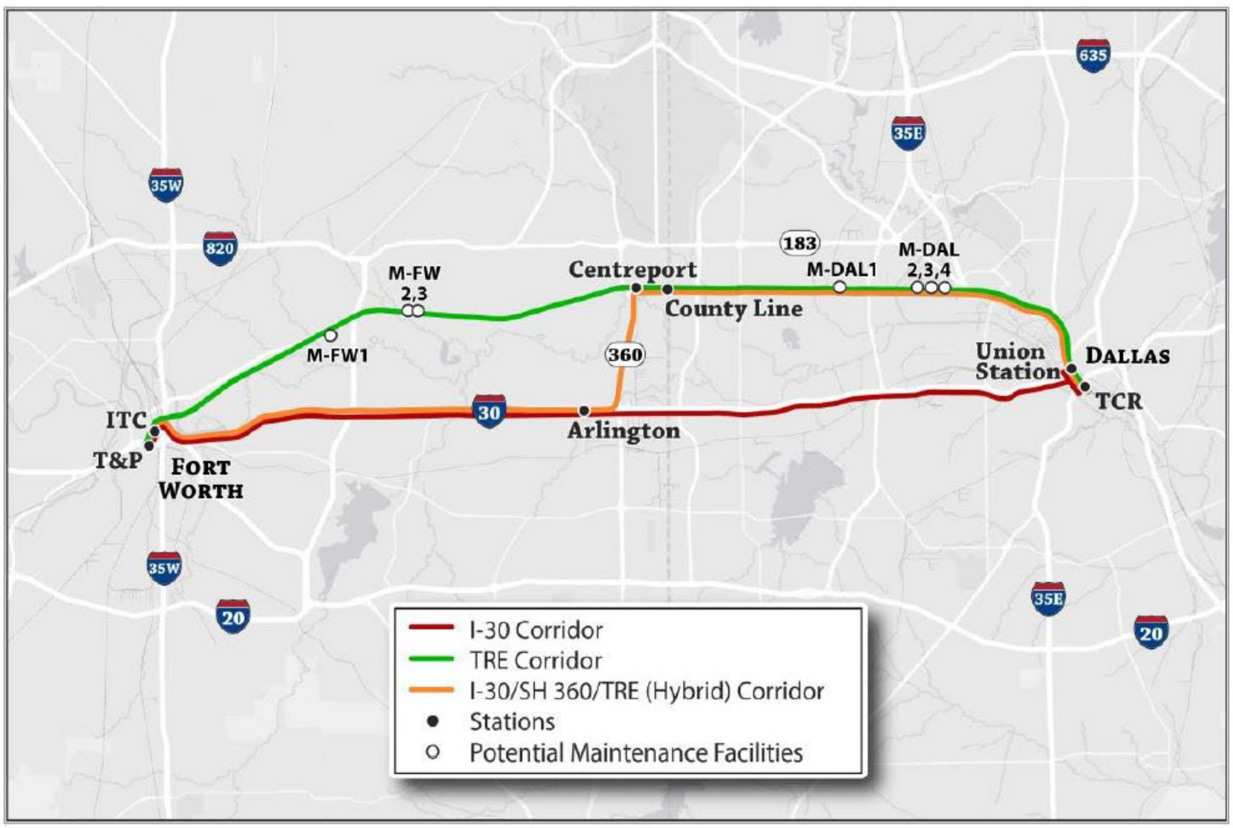
NCTCOG is currently receiving federal funding under FRA's Corridor ID Program to continue the planning of a high-speed rail alignment and stations between Dallas and Fort Worth, building on past planning efforts with FRA. The current work is identified in FRA's funding program as the Fort Worth to Houston High-Speed Rail Corridor.

Dallas-Fort Worth Core Express

In 2017, TxDOT and FRA completed a federally funded alternatives analysis report to study potential alignments for a high-performance, intercity passenger rail corridor between Dallas and Fort Worth that also could provide a link with other planned new high- and higher-speed rail services at Dallas and Fort Worth. The Dallas-Fort Worth Core Express Service report[54] evaluated the feasibility and impacts of a establishing a dedicated, limited-stop passenger rail connector between the two cities. The study was 100% federally funded and considered possible rail alignments, train types, and speeds. The alternatives analysis was undertaken as the first step toward preparing a project-level Tier 2 Environmental Impact Statement and builds on recommendations in the Texas-Oklahoma Passenger Rail Study for establishing high-performance rail service between Dallas and Fort Worth.

The study evaluated three potential passenger rail corridors between Dallas and Fort Worth and assessed their feasibility to accommodate track alignments that could support operations at three different maximum speeds: 90 mph, 125 mph, and 220 mph. Figure 3-9 shows the three corridors evaluated in the study.

Figure 3-9: Corridors Evaluated in the Dallas-Fort Worth Core Express Alternatives Analysis



Source: TxDOT Dallas-Fort Worth Core Express Service Alternatives Analysis Final Report

The alternatives analysis concluded by recommending two corridors to carry forward for detailed analysis in a future Tier 2 EIS: the TRE Corridor and the Hybrid Corridor.[55] The TRE Corridor follows the existing rail alignment used by Trinity Railway Express commuter trains between Dallas and Fort Worth through Irving and Richland Hills. The Hybrid Corridor uses a combination of alignments, including the TRE commuter line between Dallas and Centreport, State

54 https://www.txdot.gov/inside-txdot/projects/studies/statewide/dfw-core-express.html.

55 http://ftp.dot.state.tx.us/pub/txdot-info/rail/chsr-dfw/dfwces-alternatives-analysis-report.pdf.

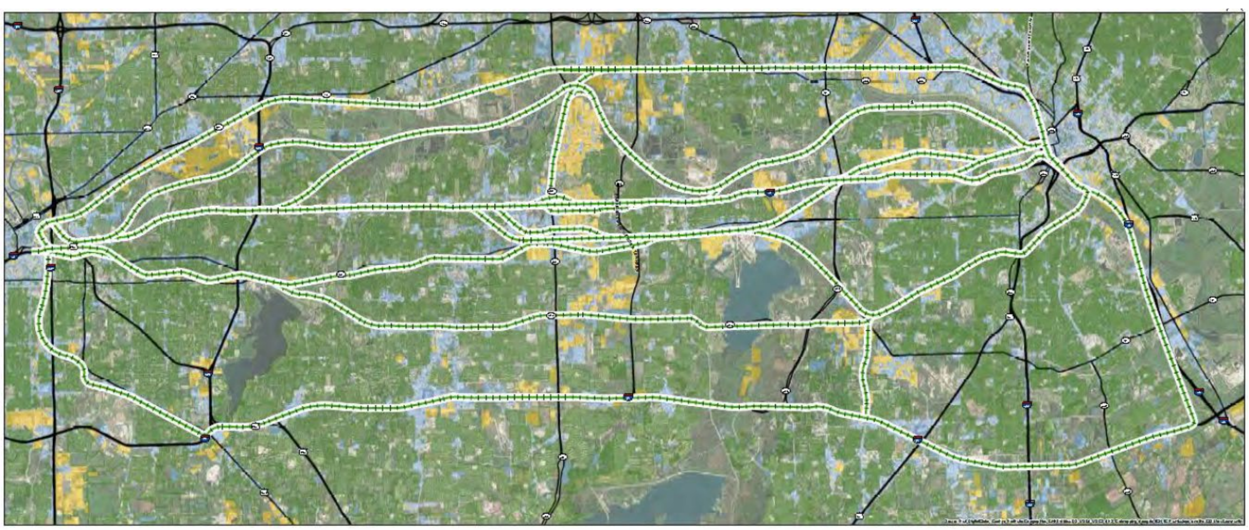
Route 360 between Centreport and Arlington, and I-30 between Arlington and Fort Worth. Both recommended corridors can support train operations at 90 mph and 125 mph, noted the study, but neither corridor was considered viable for 220-mph service because of the higher costs, corridor lengths, physical constraints, and safety requirements associated with operations at that higher speed. Capital cost estimates developed during the alternatives analysis study ranged from $3.5 billion to $5.7 billion for the TRE Corridor, depending on track speed (90 mph or 125 mph) and propulsion technology, and $5.3 billion to $6.7 billion for the Hybrid Corridor. The study projected that the Hybrid Corridor would generate higher ridership, by serving Arlington and connecting with other Texas-Oklahoma Passenger Rail Study services, and had lower environmental impacts, but the TRE Corridor had better financial viability because of its lower estimated capital cost. As a result, both corridors were recommended for further analysis.[56]

As part of the project, FRA had published a Notice of Intent to prepare an EIS for the Dallas - Fort Worth Core Express service on September 5, 2014. However, on February 27, 2020, FRA issued a notice in the Federal Register rescinding its notice of intent to prepare an EIS as a result of project scope changes proposed by the project sponsor.[57] By this time, FRA had been working with NCTCOG on assessing alternatives for a dedicated high-speed rail alignment between the two cities.

Supplemental Alignment Alternatives Analysis and Station Area Studies

With funding from FRA, NCTCOG prepared a "Supplemental Alignment Alternative Analysis for Dallas-Fort Worth High-Speed Rail Core Express Service"[58] that re-examined high-speed alignment alternatives for reasonableness and compatibility with regional transportation goals. NCTCOG has recommended developing a future high-speed rail alignment between Dallas and Fort Worth in successive regional transportation plans since 2011, including its most recent plan, Mobility 2045 Update.[59] After analyzing 18 potential alignments, the study recommended six alignment alternatives for further evaluation in a NEPA environmental process (Figure 3-10).

Figure 3-10: NCTCOG Developed Alternative Alignments



Source: NCTCOG Supplemental Alignment Alternative Analysis for Dallas-Fort Worth High-Speed Rail Core Express Service

56 http://ftp.dot.state.tx.us/pub/txdot-info/rail/chsr-dfw/dfwces-alternatives-analysis-report.pdf.

57 https://www.govinfo.gov/content/pkg/FR-2020-02-27/pdf/2020-03956.pdf.

58 https://www.nctcog.org/getmedia/6739c07f-ea8e-44be-846d-452503b7c2b5/DFW_HSR_AA_COG.pdf.

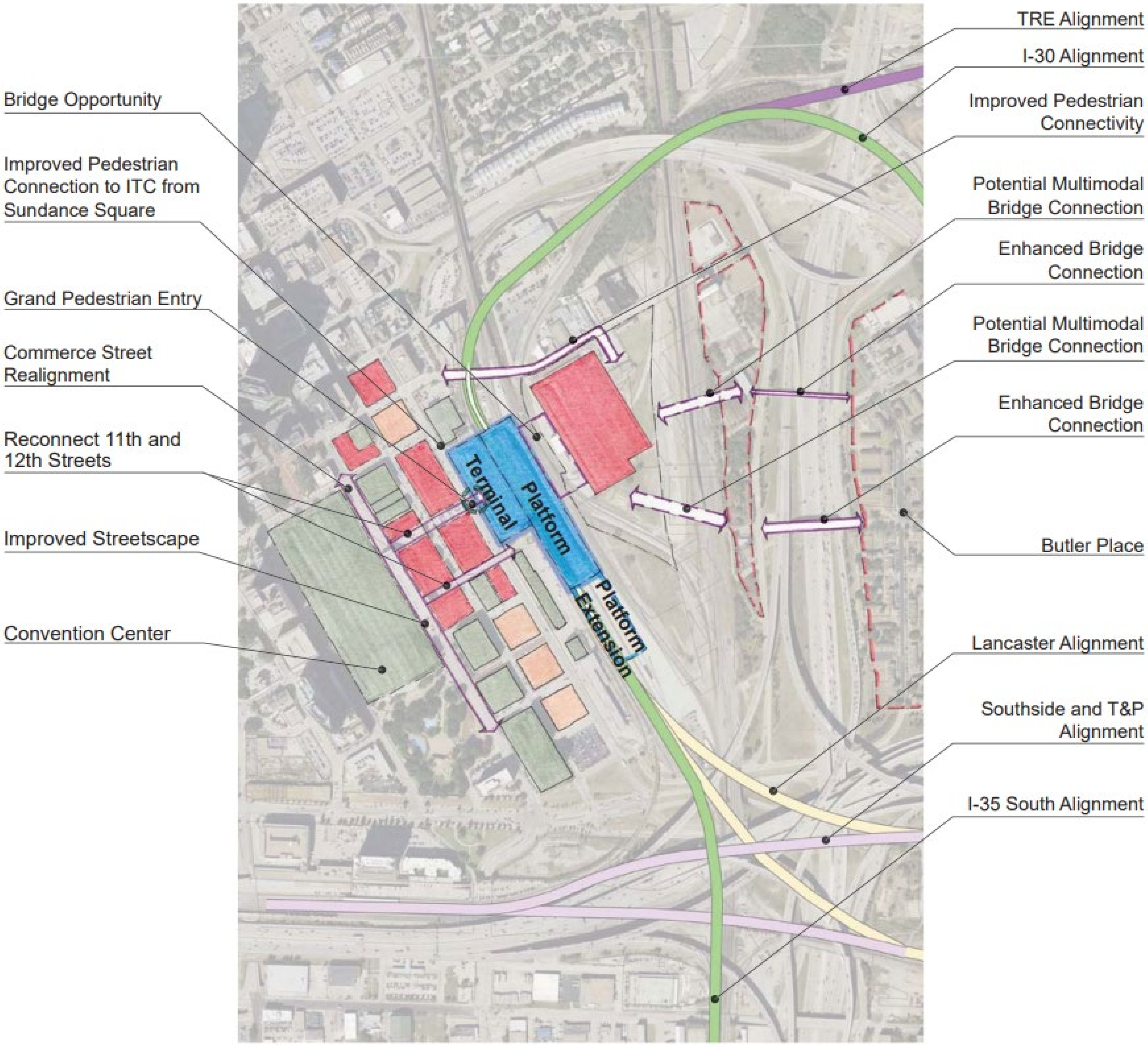
59 https://nctcog.org/trans/plan/mtp/mobility-2045-2022-update.

In addition to studying alignments, NCTCOG and its Regional Transportation Council (RTC) worked with regional stakeholders to prepare planning studies that would identify preferred locations for potential high-speed rail stations along the envisioned Dallas-Fort Worth high-speed rail alignment. NCTCOG's regional transportation plans recommending the construction of a high-speed rail alignment have supported the RTC's policy for a one-seat ride and a three-station concept that would allow for through-running between any proposed and future high-speed rail lines in the Metroplex, with stations at Dallas, Arlington, and Fort Worth. The Dallas-area station has been assumed to be the proposed Texas Central high-speed rail station in the Cedars neighborhood of Dallas. In 2019, NCTCOG provided funding for the City of Dallas to complete Dallas Intermodal Transportation Facility Fatal Flaw Analysis.

NCTCOG also worked with regional stakeholders to prepare the Fort Worth High-Speed Rail Station Area Planning Study, released in 2017.[60] The study analyzed and identified the most feasible and preferred location for a high-speed rail station in downtown Fort Worth in the City's core that would facilitate multimodal regional mobility and be integrated into the high-speed rail-compatible alignments being envisioned to extend east from Fort Worth to Dallas and south to Austin/San Antonio. The study's recommended station location is the existing Intermodal Transportation Center (ITC) area, subsequently renamed Fort Worth Central Station, in downtown Fort Worth (Figure 3-11). The report stated that the ITC provided a location that offered connectivity to existing rail and transit services, was compatible with the most likely high-speed rail alignment into the core of Fort Worth, and would generate significant opportunities for economic and cultural growth in the city center.

60 https://www.nctcog.org/getmedia/c98a35ce-43e5-437b-9382-b96ad2525564/FW-HSR-FINAL-Report-09-11-2017.pdf.

Figure 3-11: Concept for Potential Fort Worth High-Speed Rail Station



Source: NCTCOG Fort Worth High-Speed Rail Station Area Planning Study

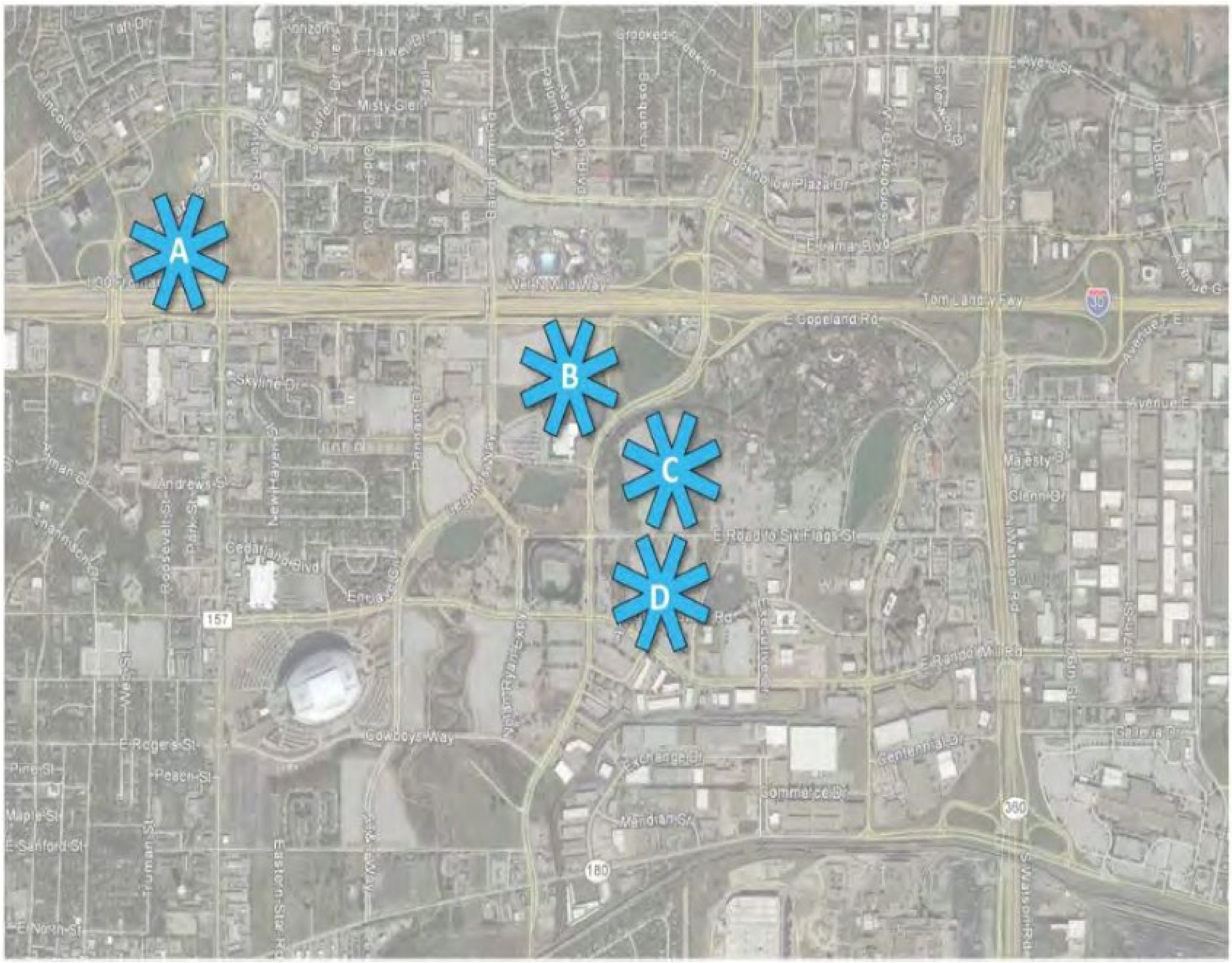
The preferred site, located east of Jones Street between Fort Worth Central Station and the Santa Fe Building (on top of the existing bus transfer area) was considered ideal as it is owned completely by public entities, offers the potential for innovative approaches to terminal and platform siting, and leverages existing multimodal and regional connectivity within the same structure. Additional study indicated that high-speed rail platforms could be built 40 to 60 feet above grade, above the existing TRE/TEXRail/Amtrak alignments, with a terminal building placed along Jones Street. This configuration would allow the terminal building to fit between the Central Station and Santa Fe buildings, while maintaining access points and ensuring the bus transit center is integrated into the terminal building.

NCTCOG also released the Arlington High-Speed Rail Station Area Planning Study in 2017.[61] This study analyzed and identified the preferred location for a high-speed rail alignment through Arlington and a high-speed rail station in the

61 https://www.nctcog.org/getmedia/140b6afe-d7a0-4da6-b276-9a9f7a966b37/AHSR-SP-FINAL-Report-09-15-2017.pdf.

city to generate additional economic development, support current Entertainment District activities, and integrate with the high-speed rail-compatible alignment envisioned between Dallas and Fort Worth. The study identified four feasible station locations, as shown in Figure 3-12. The City Council of Arlington voted to recommend three to NCTCOG as potential station location areas, with a preference for Location B, south of I-30 west of Ballpark Way, in close proximity to Six Flags Over Texas, Globe Life Field, and AT&T Stadium.

Figure 3-12: Final Recommended Arlington High-Speed Rail Station Locations



Source: NCTCOG Arlington High-Speed Rail Station Area Planning Study

NCTCOG will acknowledge the study recommendations for preferred high-speed rail station sites in Fort Worth and Arlington as it moves forward with additional planning activities.

DFW High-Speed Transportation Connections Study

NCTCOG is currently working in partnership with FRA and the Federal Transit Administration (FTA) to continue the planning work for a future high-speed rail alignment between Dallas and Fort Worth, including obtaining federal environmental approval of the viable alternative. The first phase of this effort, known as the Dallas-Fort Worth High-Speed Transportation Connections Study,[62] was completed in 2021, with the publication of an alternatives analysis that evaluated high-speed transportation alternatives between Dallas and Fort Worth, with a goal of connecting to

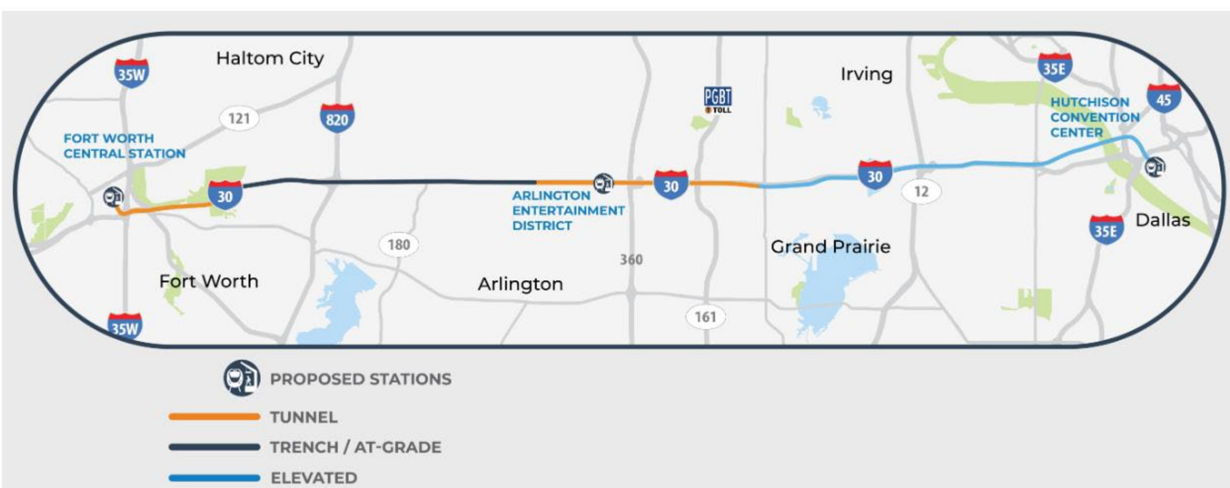
62 https://www.nctcog.org/trans/plan/transit-management-and-planning/general-public-information/transit-planning-activities/transit-planning-projects/high-speed-rail/dfw-high-speed-transportation-connections-study.

other planned and proposed high-performance passenger systems in the state and enhancing the Dallas-Fort Worth regional transportation system. The Phase 1 Alternatives Analysis evaluated 43 separate alignments between the two city centers and five modes. Alignment alternatives were identified by building upon work completed for previous high-speed passenger transportation studies in the Study Area. Based on technology requirements and previous studies, new alignments and previously considered alignments with some revisions were developed. Where feasible, alternative alignments in this study were planned primarily along existing transportation corridors to avoid and/or minimize social, economic, and environmental impacts.

The alternatives analysis concluded with the identification of a recommended alignment – the I-30 corridor with stations in Dallas, Arlington, and Fort Worth – and the identification of two recommended technologies, high-speed rail and hyperloop. (Hyperloop is an emerging transportation technology based on the concept of magnetically propelling pods carrying passengers or freight through a pneumatic tube at a high rate of speed.) Since the completion of the Phase 1 analysis, continued coordination with FTA and FRA resulted in hyperloop being eliminated from further consideration in Phase 2 of the study. Considering the preliminary level of hyperloop technology readiness, this mode of transportation could not yet be advanced through safety rulemaking in sufficient time to support the environmental clearance timeframe for the project. Based on this decision, the Regional Transportation Council, the independent transportation policy body of NCTCOG that oversees the metropolitan transportation planning process, approved the revised Phase 1 recommendation to advance only high-speed rail along I-30 on February 10, 2022.

Since then, NCTCOG has initiated Phase 2 of the study by completing a refined alignment study and an Urban Connections Screening, in preparation for a NEPA environmental evaluation of the refined alignment, which will comprise most of the Phase 2 work. Phase 2 will also include preliminary engineering, ridership forecasts, operating and maintenance plans, a project management plan, implementation plan, and a financial plan for the corridor. Figure 3-13 shows the preferred alignment carried forward for NEPA evaluation.

Figure 3-13: Preferred Alignment of Dallas-Fort Worth High-Speed Study



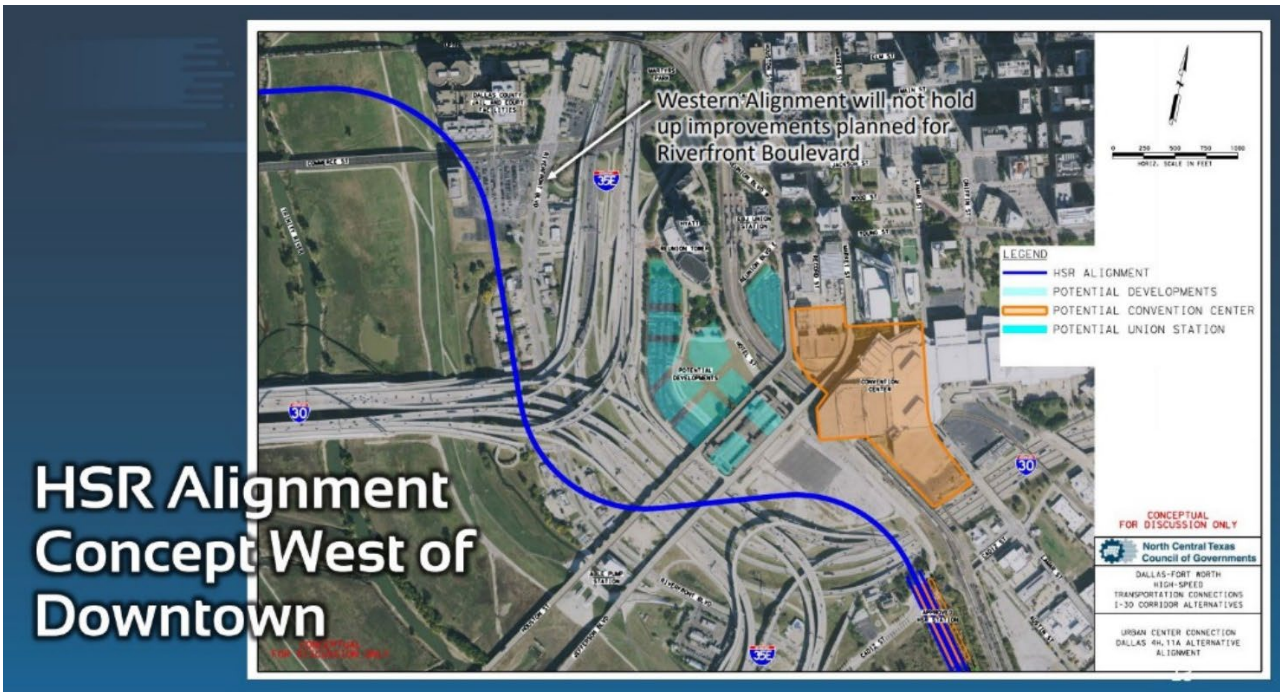
Source: NCTCOG Dallas-Fort Worth High Speed Transportation Connections Study

NCTCOG will conduct additional analysis of the recommended alternative in a NEPA environmental evaluation. On March 4, 2024, NCTCOG received a NEPA Class of Action Determination letter from FTA, which determined that an

Environmental Assessment was the appropriate class of action for the Dallas-Fort Worth High-Speed Passenger Service NEPA process.[63]

As stated previously, NCTCOG had initially studied a high-speed rail alignment that would extend west from the proposed Texas Central station in Dallas on an elevated structure through downtown. However, recent multi-billion-dollar land development efforts to construct a new convention center and a nearby 25-acre mixed-use development prompted the Dallas City Council to pass a resolution in June 2024 opposing an elevated rail line through the Central Business District until the completion of an economic impact study.[64] A month later, NCTCOG presented an alternate alignment for the planned high-speed rail alignment to Fort Worth that would avoid downtown Dallas by placing the tracks on the west of I-35 (Figure 3-14) but still connect to the Texas Central alignment at the Dallas station site in the Cedars.[65]

Figure 3-14: Potential Alternate High-Speed Rail Alignment West of Downtown Dallas



Source: NCTCOG Dallas-Fort Worth High Speed Transportation Connections Study

A contract for the economic impact study was awarded in October 2024 and is expected to be completed in three months.[66]

Dallas-Fort Worth to Meridian

Establishing a passenger rail service between the Dallas-Fort Worth region and the East Coast has been a longtime goal of cities and planning organizations along the I-20 corridor. The service would improve passenger rail travel options by providing direct service from Dallas-Fort Worth to other metropolitan regions in the southeastern U.S. such as Atlanta as well as Northeast destinations such as Washington, D.C. and New York. In addition, the service could

63 https://www.nctcog.org/getmedia/af4fcd1c-db4e-4d41-bc0a-97165f8d73ca/agendasttc03-22-2024.pdf?ext=.pdf.

64 https://www.hsrail.org/blog/dallas-city-council-passes-resolution-opposing-high-speed-rail/.

65 https://dallasexpress.com/city/bullet-train-still-on-track-to-come-dallas-what-you-need-to-know/.

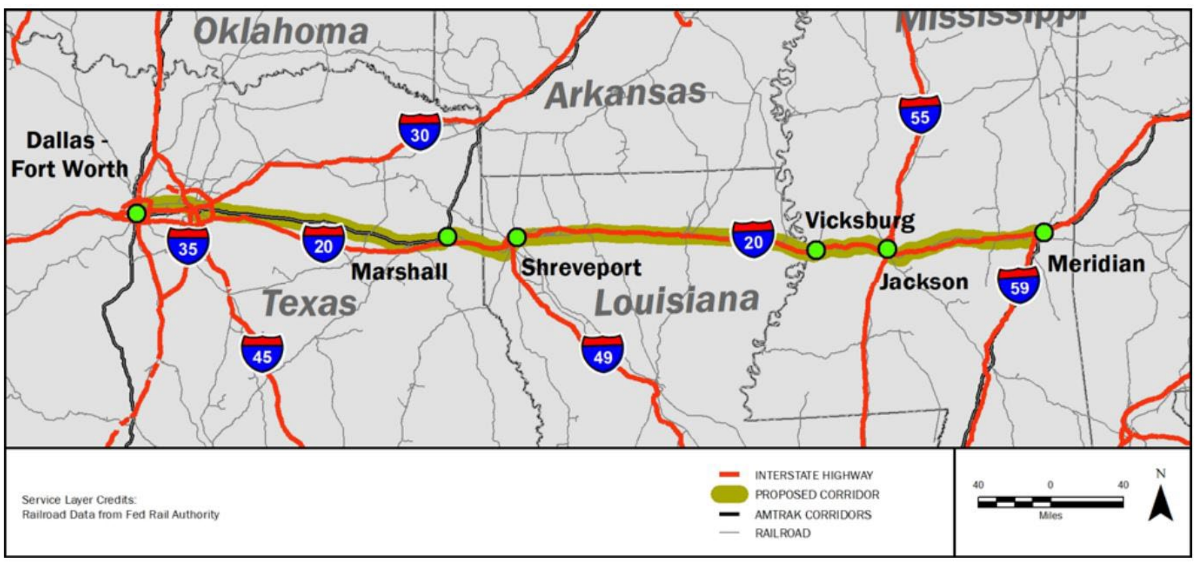
66 https://www.keranews.org/news/2024-10-24/dallas-consultant-economic-impact-study-bullet-train-high-speed-rail.

further strengthen the Dallas-Fort Worth region as a future passenger rail hub where travelers would board or connect with trains serving routes throughout the South and Southwest. The most recent effort to evaluate the feasibility of passenger rail in this corridor occurred with the October 2017 release of the Dallas-Fort Worth to Meridian Passenger Rail Study.[67] The study was prepared by TxDOT using FRA grant funding provided by the I-20 Corridor Council. The study laid the foundations for the Dallas-Fort Worth to Meridian Corridor ID Program planning study, discussed below.

Dallas-Fort Worth to Meridian Corridor in Corridor ID Program

With federal funding from FRA's Corridor ID Program, the Southern Rail Commission is preparing a service development plan to assess the feasibility of establishing intercity passenger rail service between Dallas-Fort Worth and Meridian, Mississippi along the I-20 corridor in Texas, Louisiana, and Mississippi. The planned 538-mile corridor (Figure 3-15) would connect with Amtrak's existing *Heartland Flyer*, *Texas Eagle*, *City of New Orleans*, and *Crescent* routes. Southern Rail Commission will study the feasibility of implementing conventional rail service (maximum speed of 79 mph) on existing rail infrastructure consisting of one daily round trip between Fort Worth and Meridian. The planned corridor overlaps with the existing *Texas Eagle* route for approximately 181 miles between Fort Worth and Marshall.

Figure 3-15: Project Corridor Between Fort Worth, Texas and Meridian, Mississippi



Source: TxDOT Dallas/Fort Worth to Meridian Passenger Rail Study

In 2023, the Rail Passengers Association released a study assessing potential benefits of establishing a connecting section of Amtrak's New York-New Orleans *Crescent* train along the I-20 corridor from Meridian to Dallas. The study estimated that the service would generate $50.7 million ($2023) in annual benefits to the dozen communities served, add 661 permanent jobs across all industries and 224 directly attributable to the service, and generate $207 million in annual economic benefits to the states of Mississippi, Louisiana, and Texas.[68]

67 https://irp-cdn.multiscreensite.com/be785d40/files/uploaded/DFW%20to%20Meridian%20Passenger%20Rail%20Study.pdf.

68 https://static1.squarespace.com/static/5302778ee4b07a6f640874ef/t/6425ed844a9314614f1bce9c/1680207237732/v2.0_Crescent+Extension+Research+Note.pdf.

Dallas-Fort Worth to Meridian Passenger Rail Study

Southern Rail Commission's ongoing work builds upon an October 2017 study, the Dallas-Fort Worth to Meridian Passenger Rail Study, which was prepared by TxDOT using FRA grant funding provided by the I-20 Corridor Council.[46]

The study identified the infrastructure requirements, estimated capital costs, and projected cost-benefits to reliably operate one daily round-trip intercity passenger train between Fort Worth and Meridian, MS. The passenger rail service was assumed to operate as a new section of Amtrak's existing *Crescent*, a long-distance train operating between New York and New Orleans. Through cars would depart New York as part of the *Crescent*, serving the major cities of Philadelphia, Washington, D.C., Charlotte, NC, Atlanta, and Birmingham, then split from the train at Meridian to operate west on a new route serving Jackson, MS, Vicksburg, MS, Shreveport, LA, Marshall, TX, Longview, Mineola, and Dallas, and terminating at the Fort Worth Central Station. Rail passengers would be able to make connections at Jackson, MS with Amtrak's Chicago-New Orleans *City of New Orleans*, and at Fort Worth with the *Heartland Flyer* and *Texas Eagle*. Figure 3-16 shows the potential rail corridor in relation to existing Amtrak routes serving Texas and the Gulf Coast.

Figure 3-16: Project Corridor between Dallas-Fort Worth and Meridian plus Existing Amtrak Routes

Source: TxDOT Dallas-Fort Worth to Meridian Passenger Rail Study

The service was assumed to use an existing 535-mile freight rail corridor, formed from contiguous segments of rail lines owned by NS (within the city of Meridian), KCS (Meridian-Shreveport, 310 miles), UP (Shreveport-Dallas, 192 miles), and TRE (Dallas-Fort Worth, 33 miles). The study analyzed existing track, signaling, and train volumes to determine the infrastructure upgrades and additional track capacity likely needed to support the reliable, 79-mph operation of intercity passenger rail service in the corridor. Based on that analysis, order of magnitude capital costs for new track capacity and stations were estimated to be $91.5 million. The study's benefit-cost analysis forecast that public benefits (measured in cost reductions of highway accidents, emissions, travel time, and travel costs from highway trips diverted to rail) would exceed the capital costs of the project by 2.23 to 1 after 20 years at a 7% discount rate.

The study used a conceptual schedule and base ridership projections developed by Amtrak in a previous 2015 route and service evaluation for establishing a Fort Worth Section of the *Crescent*. The Amtrak study had compared three possible train schedules, serving the corridor at three different times of day. The alternative recommended by Amtrak

in the study kept the *Crescent* operating at times that closely adhered to the existing schedule between New York and New Orleans and called for a nighttime departure and arrival at Fort Worth of the new Texas section. This was the alternative evaluated by TxDOT in the 2017 study. The earlier Amtrak study projected that, under the recommended alternative, ridership on the *Crescent* would increase by 107,100 passengers per year, generating $22.997 million in annual incremental ticket revenue. The study also forecast that the day-to-day operation of a Fort Worth section of the *Crescent* would be economically viable without requiring an annual operating subsidy from the states along the extension.[69]

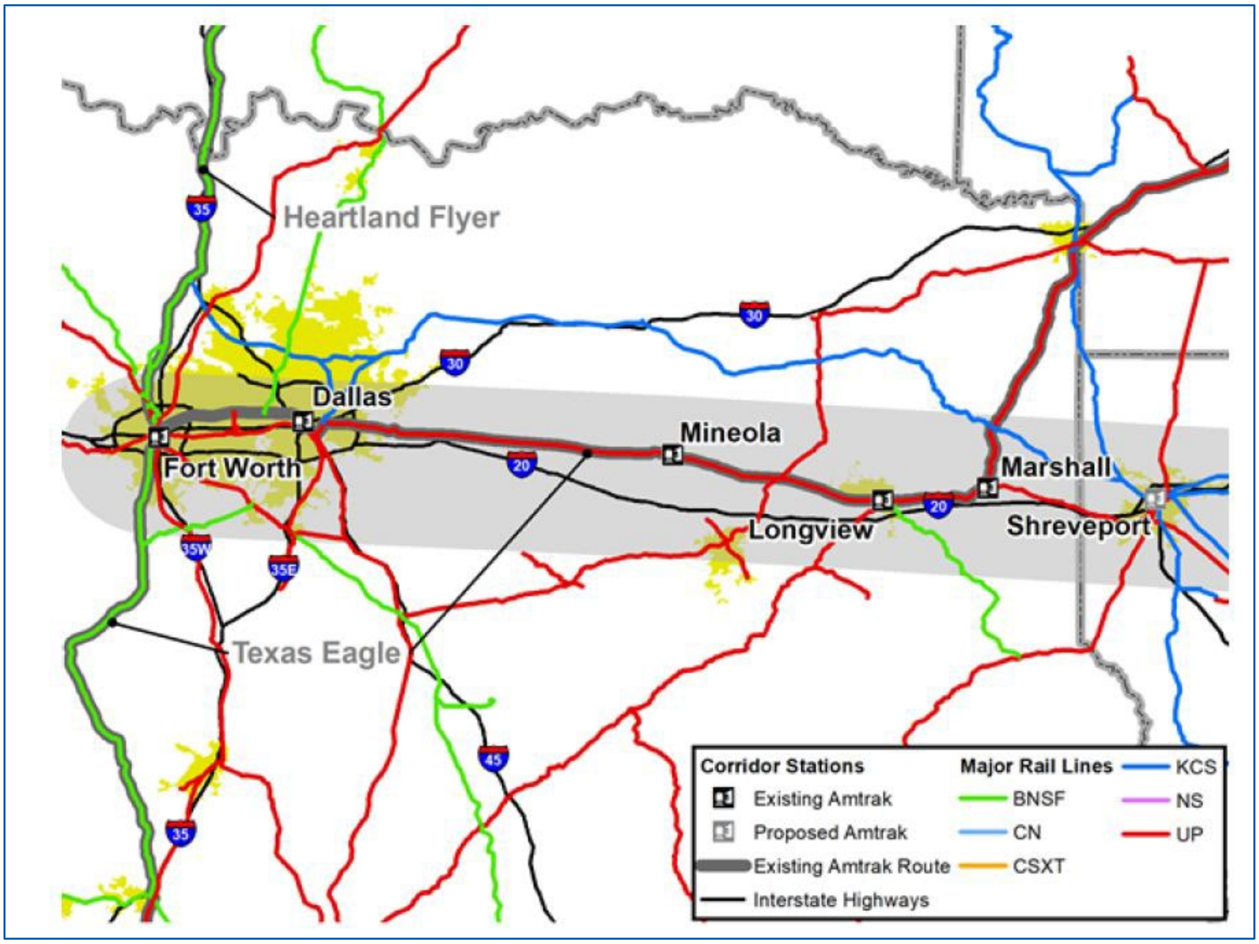
Because the host railroads did not participate in the TxDOT transportation study, the projected infrastructure requirements and capital costs were assumed to be underestimated and subject to change during future stages of development. Any type of service expansion of this nature would require agreement between all parties, including Amtrak and the host railroads.

Dallas-Fort Worth to Shreveport/Bossier City

In addition to adding long-distance passenger rail service, the I-20 Corridor Council, East Texas Council of Governments, and the Texas-Louisiana Rail Coalition have been working with cities and planning agencies along the I-20 corridor to establish a multi-frequency regional passenger rail service in the Texas-Louisiana Corridor, linking the Dallas-Fort Worth Metroplex with east Texas and Shreveport/Bossier City, LA. Using grant funding provided by the I-20 Corridor Council, TxDOT and Amtrak developed a passenger rail transportation study for the corridor that identified the capital and operating requirements projected to run two round-trip passenger trains per day on UP's freight rail line between Dallas and Shreveport. The study included evaluation of a direct rail connection between Marshall and Shreveport, as well as the use of the TRE commuter rail line between Dallas and Fort Worth, providing a potential link to DFW International Airport. Figure 3-17 illustrates the corridor analyzed in the study.

69 http://www.i-20corridorcouncil.com/overview.

Figure 3-17: Texas-Louisiana Corridor Study Area



Source: TxDOT Dallas/Fort Worth to Meridian Passenger Rail Study

TxDOT concurrently prepared a Statewide Ridership Analysis that analyzed rail travel demand between various city pairs statewide, including the Dallas-Shreveport/Bossier City corridor, and evaluated transit connectivity and potential service frequencies. The two efforts together helped establish a blueprint for the current efforts by the Southern Rail Commission for this corridor between Dallas-Fort Worth through Shreveport, Louisiana to Meridian, Mississippi.

Fort Worth to Laredo High-Speed Transportation Study

In fall 2018, NCTCOG and five other MPOs announced their intent to fund a transportation study that would develop a more precisely defined set of passenger rail transportation options in the Fort Worth-Waco-Temple-Austin-San Antonio-Laredo corridor. Amtrak had previously studied establishing a passenger rail service on a 375-mile route between San Antonio, Laredo, and Monterrey, Mexico, as part of its Network Growth Strategy published in 2000 and had even held preliminary discussions with Mexican authorities concerning alignment and right-of-way issues. However, no further action was taken once the previous study had concluded.

NCTCOG's Fort Worth to Laredo High-Speed Transportation Study[70] built on the recommendations from the Texas-Oklahoma Passenger Rail Study Tier 1 Final EIS and Record of Decision. Specific alignments, technology options

70 https://www.nctcog.org/trans/plan/transit-management-and-planning/general-public-information/transit-planning-activities/transit-planning-projects/high-speed-rail/fw-to-laredo-high-speed-transportation-stu.

(including conventional rail, high-speed rail, magnetic levitation, and hyperloop options), and potential station locations were grouped into sets of alternatives to be carried forward for evaluation in a future Tier 2 NEPA evaluation. The study was completed in 2020.

The study's highest-ranking technology/corridor combination utilized hyperloop and a highway/greenfield/utility corridor.[71] Hyperloop technology was recommended based on the understanding of technical progress being made at the time. Since the study's completion, HyperLoop One, one of the industry leaders in that technology, folded and shut down the world's first hyperloop demonstration track. Although hyperloop was the highest-ranking technology, the study's findings suggest that a corridor utilizing either hyperloop, maglev, or high-speed rail is feasible and a viable solution for addressing transportation challenges in the rapidly growing I-35 corridor.

Austin to Houston

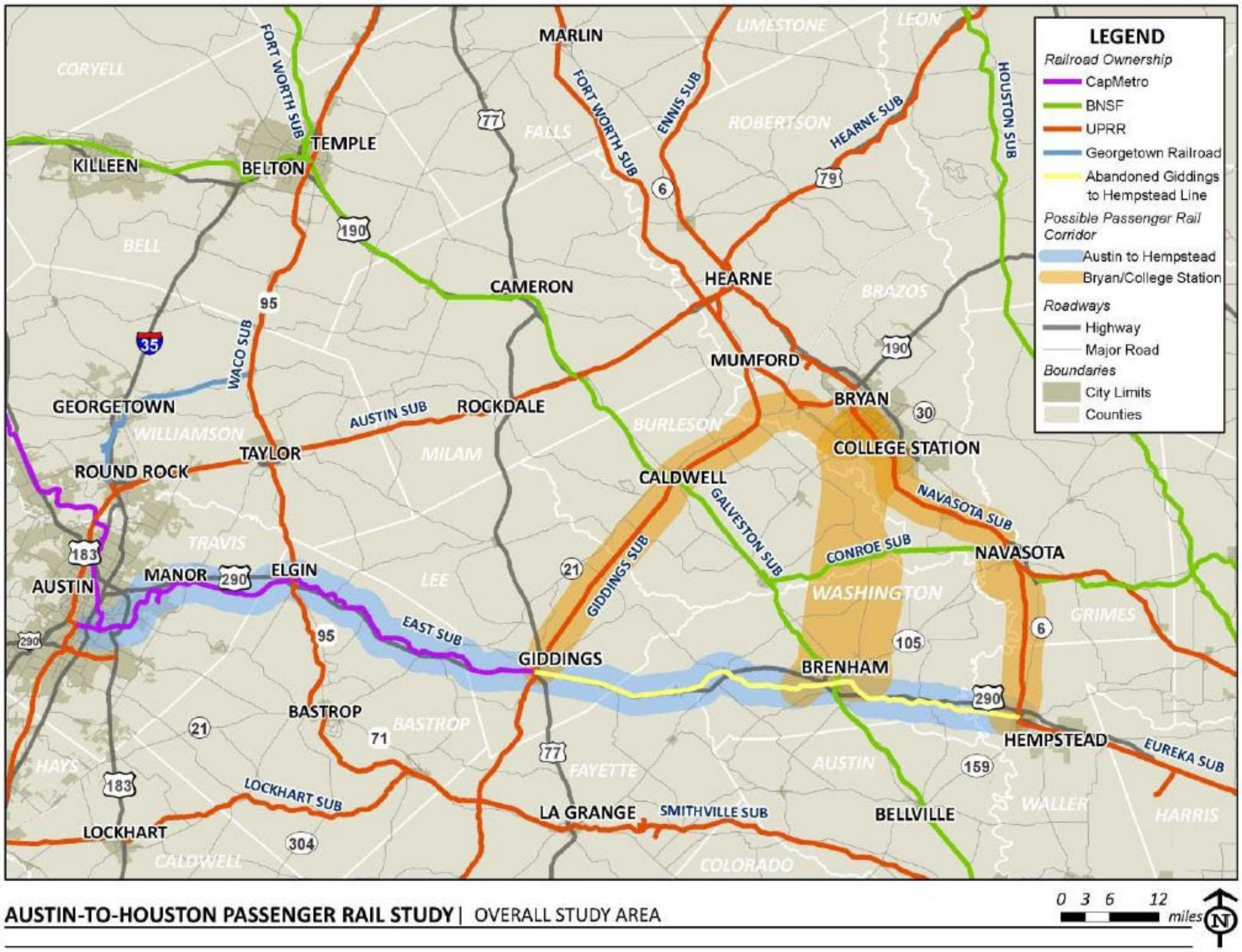
The Austin to Houston Passenger Rail Study, completed by TxDOT in December 2011, analyzed the feasibility of implementing 110-mph passenger rail service between Austin and Houston, including possible service to Bryan/College Station.[72] The corridor analyzed in the study lies roughly parallel to U.S. Highway 290 and incorporates the intermediate cities of Bryan/College Station, Giddings, Brenham, and Hempstead. The evaluation consisted of identifying the characteristics of existing rail infrastructure and operations in the corridor study area, analyzing potential alternative alignments for passenger rail operations, and determining possible infrastructure requirements and impacts of potential passenger rail service in the area.

Alignments evaluated in the study routes between Austin and Hempstead (direct), Austin and Hempstead via Bryan/College Station, Austin and Hempstead via Giddings and Bryan/College Station, and Austin and Hempstead via Brenham and Bryan/College Station. A connection at Hempstead to a potential Gulf Coast Rail District commuter rail line undergoing independent analysis at the time was assumed for the eastern end limit of the alignments. Figure 3-18 shows the alignments evaluated in the study.

71 https://www.nctcog.org/getmedia/06156a98-aafd-445f-8b15-80a12d9feeff/FW2L-Executive-summary.pdf.

72 https://ftp.dot.state.tx.us/pub/txdot-info/rail/austin_houston_final.pdf.

Figure 3-18: Austin to Houston Passenger Rail Study Alternatives



Source: TxDOT Austin to Houston Passenger Rail Study

The study analyzed four potential alignments, under two different service scenarios: a "start-up" schedule of four trains (two round trips) with a morning departure and evening return daily from both Austin and Houston, and a "build out" frequency of eight trains (four round trips) on weekdays with two morning departures and evening returns from both Austin and Houston and four trains (two round trips) on weekends. In all scenarios, passenger trains were assumed to operate at a top speed of 110 mph, where feasible.

The alignment alternatives were evaluated for environmental fatal flaws and flaws in the passenger rail alignments. The screening results were presented in exhibits and compared to determine a recommended alignment that was then carried forward for computer-based railroad operations simulation modeling. Lastly, a list of corridor requirements, based on the recommended alternative and additional infrastructure defined through the rail operations modeling was developed to outline the rail improvements needed for passenger rail implementation. The intercity passenger routes modeled included station stops at Austin, Elgin, Giddings, Brenham, Hempstead, and College Station. In the absence of a ridership analysis study, station locations were determined to be the areas with the greatest population along each corridor. The start-up service cost estimated in the study ranged from $936 million to $1.2 billion. Since the study's publication, no additional steps have been taken to advance the implementation of service.

Infrastructure Considerations for New and Expanded Passenger Services

A critical factor in all proposals to add or increase passenger rail service on existing rail lines is railroad line capacity, and the ability of existing freight railroad corridors to reliably accommodate additional passenger train frequencies. As freight volumes continue to grow on existing routes, opportunities to add passenger service may be limited or require significant investments in additional track infrastructure. On routes where higher travel speeds are desired, track reconfigurations that separate freight operations from passenger operations might need to be developed.

Intercity passenger trains currently must meet very high reliability standards, established under federal law with the passage of PRIIA, that can be challenging to achieve when traveling on rail lines with growing volumes of freight traffic. As a result, investments in additional rail line capacity will be needed to meet the increasing demands of freight rail customers as well as accommodate any additional passenger rail services; in addition, financial contributions from the public sector will be required to support passenger train operations under the federally mandated reliability thresholds. In some locations, branch lines or inactive freight railroad lines (often former main lines considered duplicative or incompatible with today's large transcontinental freight rail networks) might be upgraded as bypass routes where feasible, or new bypass routes might be constructed. In addition, busy highway-rail grade crossings will likely need to be closed or replaced with grade-separated bridges to create more reliable, fluid rail and road transportation networks that can be operated without concerns over occupied grade crossings.

When planning any passenger rail expansion or new service on freight railroad infrastructure, capacity provisions for rail freight and its growth must be included. The corridor improvement strategy must not only account for investments to improve and add capacity for the proposed rail passenger service, but in accordance with PRIIA, must also include infrastructure solutions to prevent existing freight services and forecasted higher future freight volumes from being impaired by the passenger operation. An additional issue is that public investments made to expand passenger rail consume right-of-way and likely require the purchase of additional real estate to expand rail corridor capacity, increasing the cost of passenger rail capacity investments.

Potential Improvements to Existing Commuter Services

This section summarizes future projects that are in development or under consideration to improve existing commuter rail operations in Texas. The four existing commuter rail operations in Texas are:

- Trinity Railway Express between the cities of Dallas and Fort Worth
- A-Train between the cities of Denton and Carrollton
- TEXRail between the city of Fort Worth and DFW Airport
- CapMetro Rail Red Line between the cities of Austin and Leander

Trinity Railway Express Initiatives

The following TRE improvement projects have been identified from planning documents, budgets, and media releases.

NT MOVES Improvements

TRE is engaged in an ongoing process to add track capacity to its 34-mile Dallas-Fort Worth corridor, which will improve the reliability of existing passenger and freight operations, as well as enable more frequent passenger rail service, increasing ridership and reducing congestion. As of spring 2024, approximately 50% of TRE's corridor had a second mainline track, while the rest of the corridor was single track with a handful of passing sidings. The capacity expansion effort includes double-tracking additional line segments, creating grade-separated crossings, and replacing or rehabilitating bridges.

TRE is currently advancing several improvements that will add more sections of double track and replace bridges on the network. Approximately half the funding for these improvements is being provided by a September 2020 $25 million BUILD grant award to the NCTCOG for the NT MOVES project (the abbreviated name of the North Texas Multimodal Operations, Velocity, Efficiency and Safety Program).[73] The NT MOVES project has three major components:

Double Track Medical Market Center to Stemmons Freeway. Add a second main track from Medical Market Center to Stemmons Freeway (milepost 639.5) to the beginning of the existing double-tracked section west of Medical Market Center Station (approximately milepost 640.7), a distance of about 1.2 miles. In addition, rehabilitate the existing bridge over Inwood Road (milepost 640.41) and add an adjacent bridge for a new second track. Add a new bridge at Knights Branch (milepost 640.32) for a new second track. Replace the current Noble Branch Bridge and add an adjacent bridge for a second track (milepost 639.62). Figure 3-19 shows the current Inwood Road bridge. Construction of this project component is expected to begin in late 2024 or early 2025 and conclude in fall 2026.

Figure 3-19: TRE Bridge over Inwood Road

Source: Google Streetview

73 https://www.texasrailadvocates.org/post/n-texas-scores-25-million-fed-grant-between-dallas-fort-worth#:~:text=Texas%20scores%20%2425%20million%20fed%20rail%20grant%20between%20Dallas%20%26%20Fort%20Worth&text=A%20federal%20rail%20grant%20of,Railway%20Express%20(TRE)%20line.

- **Double Track Handley Ederville Road to Precinct Line Road**. Replace bridges at Walkers Creek (milepost 620.60) and Mesquite Creek (milepost 621.06), and construct 2.4 miles of new second track from east of Handley Ederville Road to east of Precinct Line Road (milepost 618.7 to milepost 621.1). Construction of this project component is expected to begin in 2025 and conclude in fall 2027.
- **Implement Clear Path™ Technology**. Design and develop a concept of operations and implement the hardware and software backbone structure of Clear Path™, a rail traffic management application that will enable all agencies and users of the DFW regional rail system to exchange timely, accurate, and actionable information on train movements in the terminal complex. This system will increase the capacity of the DFW rail network by facilitating inter-carrier operations and enhancing the flow of passenger and freight trains through the complex.

Equipment Purchases and Improvements

TRE completed a Fleet Assessment in 2023 to guide decision-making on a fleet replacement strategy. Based on the results, the boards of DART and Trinity Metro approved a contract with Siemens Mobility in February 2024 to purchase five new Charger locomotives, which will replace aging diesel locomotives. The purchase is being made using options as part of a joint procurement with Illinois DOT.

The initial $66.2 million contract uses agency and RTC approved funds. TRE and DART are seeking additional external grant funding to support the purchase of up to six more EPA Tier IV low-emissions locomotives in future phases. In addition, TRE has 10 vehicles (coaches and cab cars) budgeted for midlife overhaul in 2025. These 10 vehicles were purchased new and have never been overhauled.

DART's 2024-2028 five-year capital investment program estimates that additional investments totaling $295 million over 20 years will be needed to replace TRE commuter rail equipment that has exceeded its 30-year service life.

DART's five-year capital investment program also includes investments to replace or refurbish Positive Train Control (PTC) systems and other Intelligent Transportation Systems (ITS) infrastructure that supports the TRE commuter rail service. (PTC systems are designed to ensure trains are moving safely and automatically stop them if they are not.) The plan calls for $93 million in short-term investments and $279 million over 20 years for state-of-good repair projects to maintain the right-of-way and signal system on the TRE corridor and the connecting Madill Subdivision at Irving, along with the replacement of three bridges on the Madill Subdivision.

DART 2045 Transit System Plan

In 2022, DART released its 2045 Transit System Plan, which identifies key opportunities and provides a framework to develop and advance future programs and initiatives that support DART's vision, which is centered around the people and communities it serves.[74] The 2045 Transit System Plan is intended to be a more policy-oriented plan to help DART address future opportunities and shape and influence future transit services offered in the North Texas region. The plan notes that this region will continue to grow rapidly into the future, adding nearly 4 million new residents and approximately 2.2 million jobs by the year 2045. At the same time, the mobility landscape is changing with new technology and innovative services.

Future opportunities identified in the plan are built around five key themes or areas of focus:

74 https://www.dart.org/docs/default-source/expansion/dart_tsp2045_executivesummary_2022_final.pdf.

- **Rider Experience**: Focus on access, safety/security, customer information, and system enhancements to improve rider experience.
- **Mobility and Innovation**: Advance mobility through innovation, technology, and customer initiatives.
- **Service and Expansion**: Target service improvements and system expansion.
- **Land Use and Economic Development**: Integrate land use and transit planning to grow ridership and create transit-oriented development (TOD).
- **Collaboration**: Collaborate with public and private partners on transit supportive programs, policies, and projects.

DART's plan also calls for spending $8.3 billion between 2021 and 2040 on capital and non-operating expenditures between FY 2021 and FY 2040. Significant capital investments include the Silver Line regional rail system linking DFW Airport and Plano and the proposed D2 Subway light rail project. (The D2 project was subsequently removed from DART's 20-year investment plan.) In all, the plan calls for $2.2 billion of investments in the TRE and Silver Line regional rail services, or 26% of the total 20-year capital investment program, including completion of the Silver Line. Future TRE improvements include a new fleet of trains, as well as investments in positive train control signaling, service facilities, and vehicles, and passenger information display systems at stations.

Actions for future implementation associated with each major theme are also presented in the plan, organized into 11 goals. Goal 8 is centered specifically on opportunities to improve the TRE and Silver Line regional rail systems. The following key opportunities associated with Goal 8 are identified in the plan:

- Develop a marketing plan to increase ridership on the TRE. Sunday service and vehicle replacements to address the aging fleet will be implemented in the future.
- Develop a marketing plan for the Silver Line to promote the new service across the region. After revenue service begins, DART will monitor Silver Line ridership and recommend improved service levels as appropriate to meet rider demand and enhance service to employment and activity centers.
- Coordinate with Trinity Metro on options to support more commuter service and add rail capacity on the TRE corridor, as well as develop agreements for future infrastructure improvements necessary to provide "through" service from Plano to Fort Worth, using a combination of Silver Line and TEXRail trackage.

The plan also contains the following eight action items to support the goal of improving the TRE and Silver Line regional rail services:

- Action 8.1: Purchase new commuter trains to replace the TRE fleet to address ridership needs and create opportunities for regional vehicle compatibility (long-term, within 10-20 years).
- Action 8.2: Coordinate with Trinity Metro on options to double-track or triple-track the TRE corridor to support more commuter/freight service and potential higher speed rail (ongoing).
- Action 8.3: Identify and prioritize TRE service improvements, including potential Sunday service (short-term, within 1-5 years, and mid-term, within 6-10 years).
- Action 8.4: Monitor Silver Line ridership and recommend an appropriate timeframe for improved service levels to meet the needs of riders (mid-term, within 6-10 years).
- Action 8.5: Develop agreements with Trinity Metro and program required infrastructure improvements to provide Silver Line "through" service from Plano to Fort Worth (short-term, within 1-5 years, and mid-term, within 6-10 years).

- Action 8.6: Develop marketing plan to drive ridership on both TRE and Silver Line corridors (short-term, within 1-5 years).

Denton County Transportation Authority Initiatives

The following Denton County Transportation Authority (DCTA) improvement projects, which have been identified from agency outreach, planning documents, budgets, and media releases, provide alternatives for efficiently moving large numbers of people through Denton and Collin counties using rail transportation.

A-Train Enhancement Study Potential Improvements

In 2022, the DCTA board of directors commissioned an A-train enhancement study, which will assess the feasibility of several improvements that have been identified as potential ways to increase ridership and the utility of the service. Foremost among the enhancements is a potential extension of the A-train south from the Trinity Mills station to reach the Downtown Carrollton station, where riders will be able to connect to the new DART Silver Line commuter rail service planned to begin service in late 2025 or early 2026.

The study also includes an analysis of track and Positive Train Control software improvements to increase train speed and reduce travel time across the rail corridor. In August 2018, FRA awarded DCTA $4 million in grant funding through the Consolidated Rail Infrastructure and Safety Improvements (CRISI) program for a $5 million project ($4 million federal, $1 million local match) to enhance the A-train's existing Enhanced Automatic Train Control (EATC) software, which is the system employed to meet FRA Positive Train Control (PTC) requirements.[75] DCTA is currently determining how to leverage the grant funding in conjunction with the planned A-train extension to Downtown Carrollton. The PTC improvements support an objective of the study to enhance connectivity of the A-train at Trinity Mills, including a reduction of headways to 20 minutes during peak periods while still maintain off-peak headways of 30 minutes if required.

The enhancement study also includes analyzing the feasibility of constructing a potential seventh station along the existing A-train in the city of Corinth, working with the city on identifying a station location and additional track infrastructure.

DCTA Strategic Plan

DCTA completed a vision service plan in February 2012 that complemented regional planning efforts undertaken by NCTCOG. From that initial planning, the two highest priority expansion corridors in the county were determined to be an extension of A-train service farther into Carrollton, which would allow future connections with the proposed Cotton Belt (today's Silver Line) and Frisco commuter rail lines, and the development of the Frisco Line commuter rail corridor between Carrollton and Celina. These plans, along with a new station on the existing A-train line and a northern extension in Denton, were carried forward into DCTA's 2018 Strategic Planning Guidance Report.[76] Figure 3-20 illustrates DCTA's current rail expansion plans.

75 https://railroads.dot.gov/newsroom/fra-awards-more-200-million-ptc-implementation.

76 7 https://www.dcta.net/sites/default/files/documents/about-us/Strategic_Guidance_Report_(FINAL)_-_3.23.18.pdf.

The 2018 Strategic Planning Guidance Report also sets immediate, short-term, and long-term goals for the further development of these initiatives.[77] These goals include:

Immediate Goals (within 1 to 2 years):

- Expand stakeholder outreach to additional communities along the existing A-Train corridor.
- Prepare a feasible plan to add an A-Train station near North Central Texas College in Corinth.
- Develop initial evaluations of A-Train extensions to the north and to the south.
- Develop a legislative package to allow the use of freight rail corridors for commuter rail.

Short-Term Goals (within 2 years):

- Receive FRA certification for A-Train PTC operation.
- Facilitate development near stations that will grow ridership and property values.

Long-Term Goals (within 2 to 5 years or more):

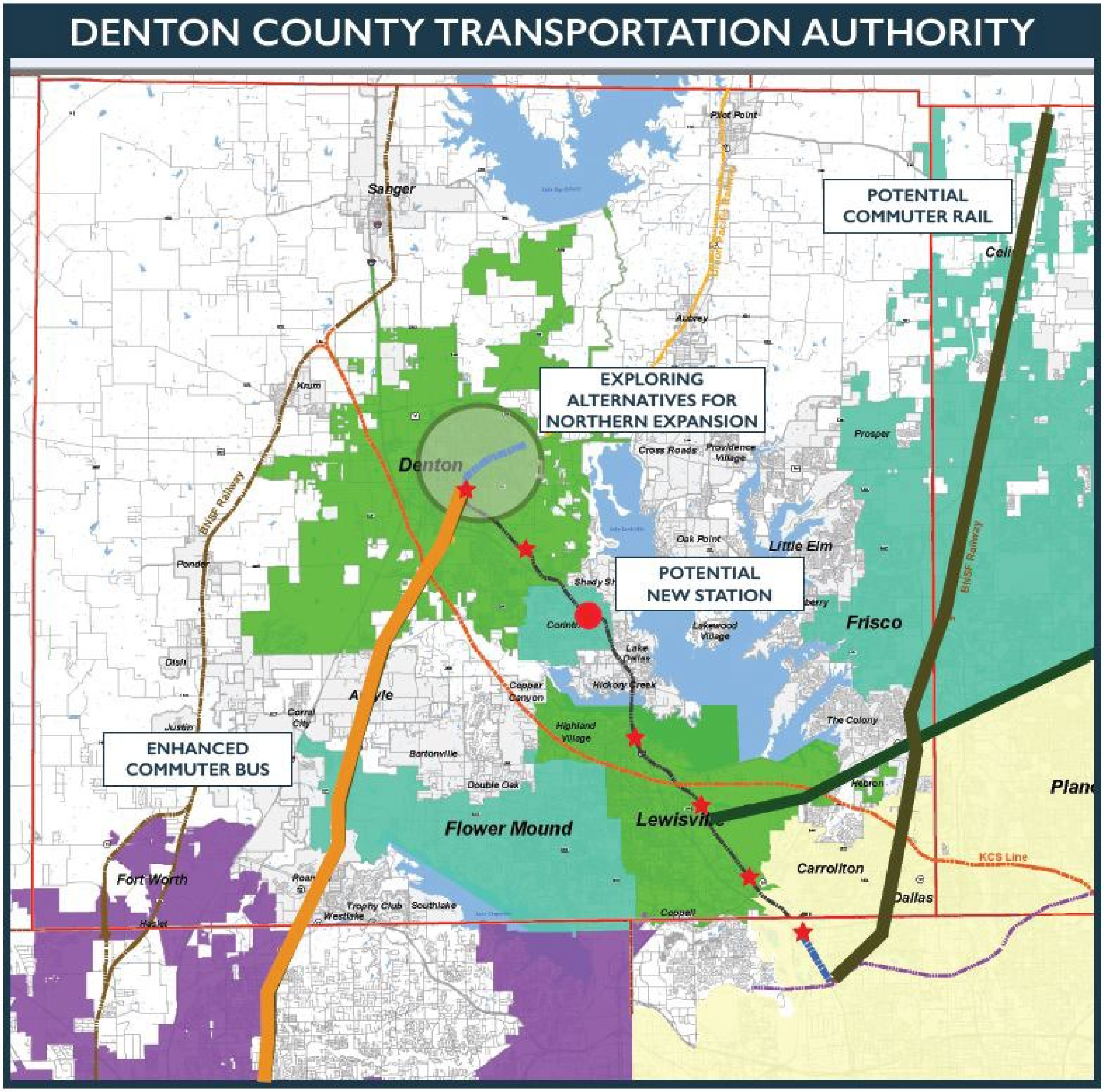
- Implement A-Train extensions to the north and south.
- Implement service on BNSF Railway trackage from Belt Line to Celina.

The planned A-Train additions will create new system endpoints by extending service northward from the Downtown Denton Transit Center to Pilot Point and extending service southward from the Trinity Mills station into downtown Carrollton. The 2-mile south extension to Carrollton has a projected capital cost of $125 million.[78]

77 DCTA Strategic Planning Guidance Report, Resolution 18-02, Adopted March 22, 2018.

78 NCTCOG Mobility 2045 Appendix E Mobility Options: https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Plan/MTP/E-Mobility-Options.pdf.

Figure 3-20: Potential DCTA Rail Extension in Denton and Collin Counties



Source: DCTA 2018 Strategic Planning Guidance Report

The other long-term goal in the strategic plan is to establish commuter rail service on the Frisco Line, extending from the Downtown Carrollton Station (Belt Line Road) northward through Frisco to Celina in Collin County over BNSF Railway freight tracks. DCTA's 2012 vision plan noted that Frisco Line service would attract a projected 12,000 daily riders, the highest ridership among the various future rail corridors studied, and provide a needed transportation link that has been identified frequently in prior regional mobility plans.

DCTA is also working with NCTCOG on advancing the initiatives recommended for Denton and Collin counties in NCTCOG's Mobility 2045 Update regional transportation plan. This plan also calls for building the A-train South Extension to Carrollton and adding commuter rail service on the Frisco corridor, as well as adding commuter rail service on the McKinney corridor from Plano to McKinney.

TEXRail Initiatives

Although it only began operation in January 2019, efforts to extend the TEXRail commuter service are already underway. Trinity Metro is currently constructing a 2.1-mile addition to the TEXRail system that will extend the route from the Fort Worth T&P Station to a new eastern terminus in the Fort Worth Medical District called the Near Southside Station.[79] The extension will utilize UP right-of-way (ROW) and operate on an exclusive track traveling west from the Fort Worth T&P Station to a connection with the Fort Worth & Western Railroad (FWWR) ROW, where it would then turn south to transition onto its own alignment adjacent to the FWWR freight track in the FWWR ROW. The new Southside Station will be located in close proximity to the Baylor Scott & White All Saints Medical Center, the Cook Children's Medical Center, and other independent medical clinics. The extension has an estimated project cost of approximately $179 million,[80] with funding provided by the City of Fort Worth, Trinity Metro, and federal programs.[81] The initial 27-mile TEXRail was completed at $80.6 million under budget, with approximately half of the funds coming from federal and the remainder from local sources. In March 2020, FTA authorized using the remaining $38.9 million in federal funds to extend TEXRail to a new station in the Medical District. Construction is expected to start in 2024, with revenue service projected to begin sometime in 2026.

The Medical District extension is the first phase of a long-term plan to build an 11-mile extension of the TEXRail system from the Fort Worth T&P Station southwest to a Summer Creek/Sycamore School Road in southwest Fort Worth near McPherson. In fall 2018, Trinity Metro had submitted a proposal to the City of Fort Worth to implement an extension of service from downtown Fort Worth to Summer Creek in southwest Fort Worth near the Chisholm Trail Parkway, with intermediate stations serving the Medical District, Texas Christian University, and Granbury Road at I-20. This line segment, which has a projected capital cost of $500 million, was originally planned to open as part of the existing service but was dropped to redirect resources to initiating service between Fort Worth and DFW Airport.[82] Additional planning and development is needed to advance this extension, such as an environmental study and station-area economic analysis, and a suitable funding stream to finance the extension must be secured. Figure 3-21 illustrates the existing TEXRail route and planned southwest extension.

Trinity Metro also has a long-term plan to double-track the complete TEXRail line, improving both passenger and freight operations in the corridor.

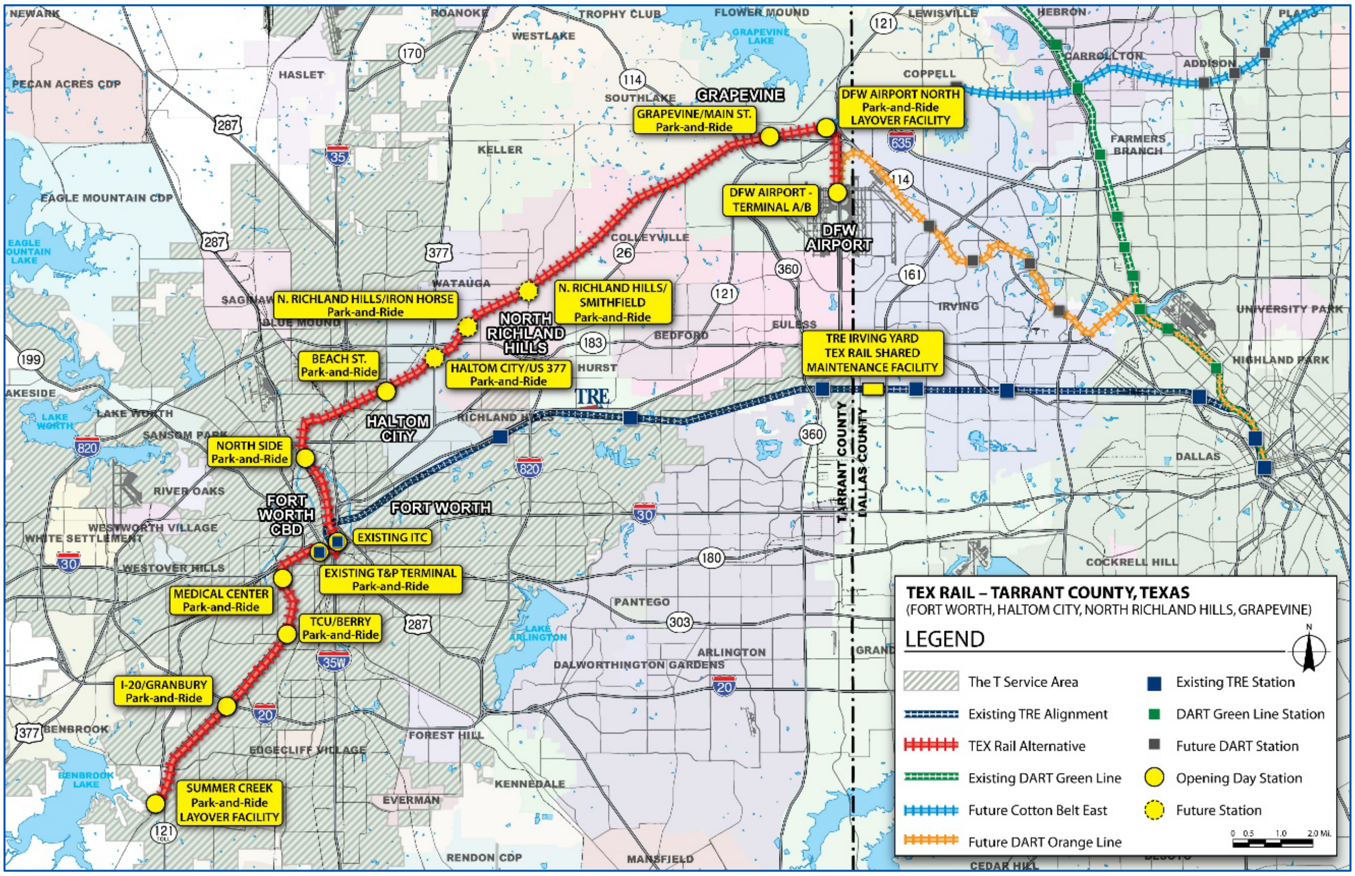
79 https://ridetrinitymetro.org/texrail-extension/#1642707524108-918b2fa9-e2ef.

80 https://www.hvj.com/blog/project-announcement-texrail-extension-project.

81 https://communityimpact.com/dallas-fort-worth/grapevine-colleyville-southlake/development/2024/02/23/texrail-expansion-to-bring-economic-growth-to-grapevine/.

82 http://www.fwtx.com/articles/fwincfeatures-fwinc/fwinc-features/6-projects-around-texrail-keep-eye-and-whats-next.

Figure 3-21: Existing TEXRail System and Planned Southwest Extension



Source: Trinity Metro

Austin Commuter Rail Initiatives

Project Connect

Austin's Capital Metropolitan Transportation Authority (CapMetro) unveiled its long-term transit plan for Central Texas to the public on October 1, 2018.[83] Capital Metro's Project Connect initiative will address anticipated transportation impacts associated with the growing population and increasing road congestion in the capital area by implementing a series of transportation improvement projects in distinct corridors over the next several decades. Following several evaluation phases of potential corridors where transportation investments would be directed, two commuter rail corridors were advanced as part of the Project Connect System Plan,[84] which was adopted by the Capital Metro Board, with a subsequent resolution of approval from the Austin City Council on June 10, 2020: the existing CapMetro Rail 32-mile Red Line corridor between Austin and Leander, and a proposed 25-mile Green Line rail corridor from Austin northeast to Manor and Elgin.

A ballot measure to fund the proposed $7.1 billion program of improvements with a property tax increase (Proposition A) was approved by Autin voters in November 2020.[85] One requirement from the City of Austin related to the 2020 Proposition A ballot measure was the creation of a local government corporation called Austin Transit Partnership, as

83 KVUE: https://www.kvue.com/article/news/local/after-unveiling-autonomous-transit-maps-capmetro-wants-feedback-on-long-term-plans/269-599925806.

84 https://www.capmetro.org/docs/default-source/project_connect/resources/project-connect-initial-investment-overview.pdf.

85 https://www.kut.org/politics/2020-11-03/2020-election-results-austin-voters-overwhelmingly-approve-transit-related-ballot-measures.

an independent entity responsible for implementing Project Connect. The initial plan included a new 20-mile light-rail system with two routes, a downtown light-rail tunnel, the first 8 miles of the proposed Green Line commuter rail service from downtown to East Austin's Colony Park, and an expansion of multiple rapid bus routes. After the estimated costs for implementing the initial system plan escalated to more than $11 billion, CapMetro, the City of Austin, and ATP developed a scaled-down plan with an estimated cost in line with the original budget that was approved by all three entities in 2023.[86] The scaled-down plan, dubbed Phase 1, reduced the light-rail system to 9.8 miles, deferred the extension to the Austin airport until funding could be secured, and eliminated the downtown tunnel. Construction of the scaled-down light rail plan is estimated to begin in 2027 and revenue service potentially could begin in 2033.[87]

Proposed Green Line Commuter Rail Service

The proposed Green Line commuter rail project is part of Project Connect, but a feasibility study for the service had already been approved by the board of directors on July 30, 2018.[88] The new 25-mile line would originate in Austin, and follow an existing Capital Metro freight line north and east through Travis and Bastrop counties serving Pleasant Valley, Springdale, Loyola, Colony Park, Manor, and Elgin. Serving Austin's Eastern Crescent, the Green Line would provide low-income households with access to more affordable housing options along a high-capacity transit system that would link them to jobs and services within Central Austin and beyond. The Green Line would connect with the CapMetro Rail Red Line at the Plaza Saltillo and the Downtown Austin stations, as well as other potential high-capacity corridors and CapMetro's high-frequency bus network. The Manor station would be located adjacent to an existing CapMetro bus park and ride. Figure 3-22 shows the proposed route of the Green Line.

The implementation of Green Line service has been divided into phases. The first phase will be 8 miles long between downtown Austin and Colony Park and include seven train stations. Future phases will extend the line an additional 17 miles to Manor Park and Elgin and add three more stations.[89]

Early planning efforts indicated that the Green Line would be one of the least invasive transit expansion projects and would result in limited impacts to right-of-way and travel lanes owing to the use of railroad infrastructure already owned by CapMetro. However, the cost to repurpose the existing freight-only tracks for passenger rail service is relatively high, given the length of the corridor and the number of bridges. The proposed service would use diesel multiple unit trainsets like those used on the Red Line and operate with 30-minute peak frequencies and 60-minute off-peak frequencies.

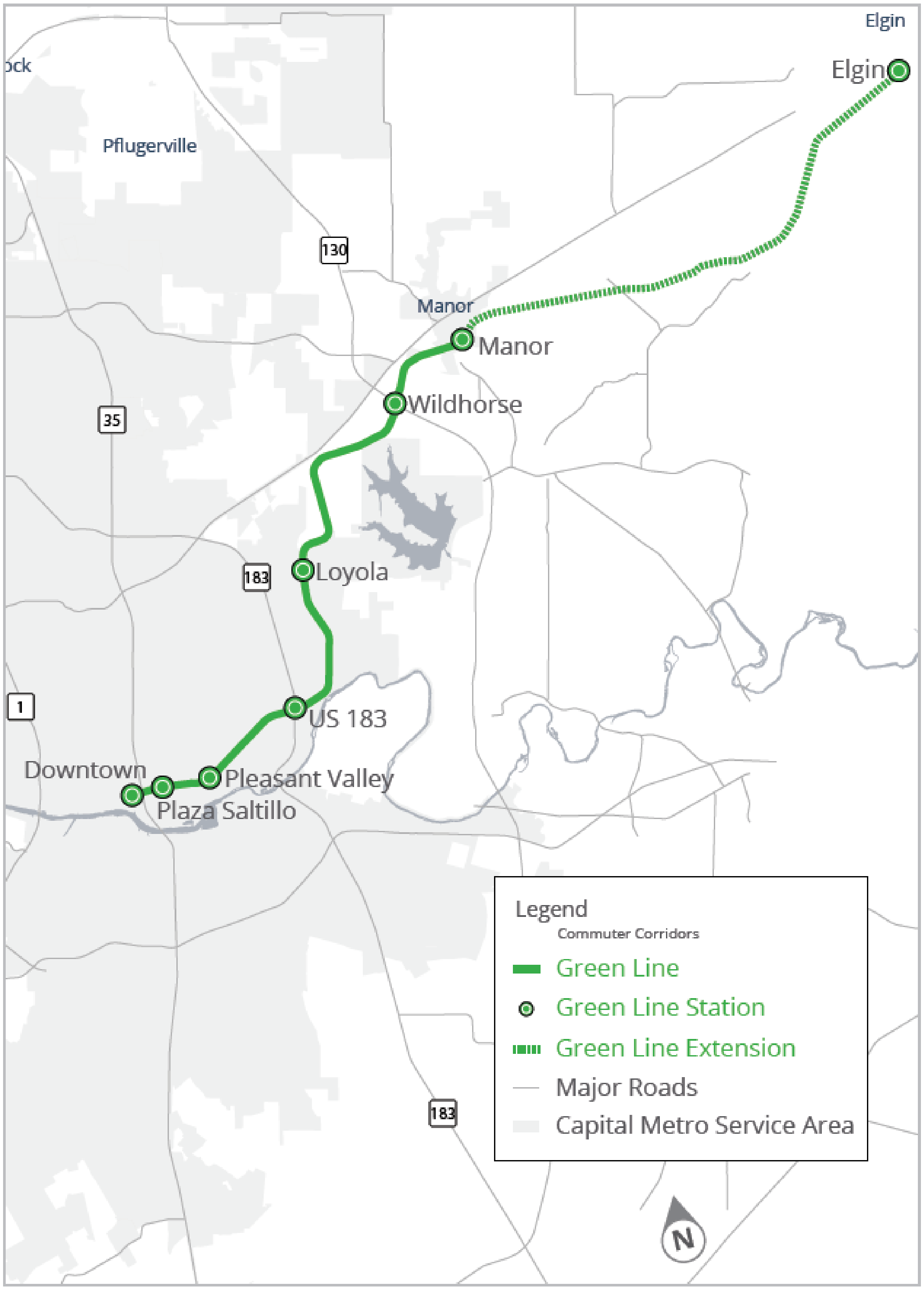
86 https://www.austinmonitor.com/stories/2024/04/legal-showdown-threatens-to-end-austins-light-rail-plans/.

87 https://www.austinmonitor.com/stories/2024/04/legal-showdown-threatens-to-end-austins-light-rail-plans/.

88 Austin Monitor: Capital Metro gives green light to Green Line, August 1, 2018.

89 https://www.projectconnect.com/docs/librariesprovider2/default-document-library/fact-sheets-2023/pc-green-line_english-june-2023.pdf?sfvrsn=4a27dbba_1.

Figure 3-22: Austin's Proposed MetroRail Green Line



Source: Capital Metro

Elgin is outside CapMetro's current service area, and thus service to Elgin would require a shared funding agreement with the city, Bastrop County, or other funding partners. The projected capital cost of Phase 1 from Austin to Colony Park is nearly $370 million, according to a 2019 cost estimate prepared by CapMetro.[90]

90 https://www.projectconnect.com/docs/default-source/atp-docs/green-line/green-line-scc_workbook_final_102919.pdf?sfvrsn=e545de6_2.

Short-Range Red Line Improvements

Planned improvements to the Red Line as part of Project Connect will accommodate the growth in population being experienced along the Red Line Corridor and improve connections between people and activity centers, such as the Austin Convention Center, Plaza Saltillo, Q2 Stadium and Crestview station, where riders can link to many bus routes.[91] CapMetro's goal for Red Line service under Project Connect is to double the capacity and frequency of the commuter rail service. Planned improvements to the Red Line as a part of Project Connect include:

Double tracking the corridor in key locations to support higher frequency service. Capital Metro's Connections 2025 Service Plan proposed 15-minute frequencies for CapMetro Rail between the Downtown and Kramer stations. However, the existing track infrastructure limits the number of trains that can operate at the same time, and the locations where trains moving in opposite directions can pass each other. With additional segments of double track or passing sidings, CapMetro would be able to operate more trains in each direction, allowing the agency to increase passenger capacity by operating trains at 15-minute frequencies.

One of the long-term investment scenarios recommended in Project Connect is to double-track the entire Red Line between the Downtown Austin and Kramer stations, and construct sections of double track between the Kramer and Leander stations. This additional infrastructure would allow for more Red Line daytime, evening, and late-night service, with 15-minute frequencies during peak periods and 30-minute frequencies in off-peak periods, as well as additional weekend service that also would allow more freight rail service to operate during the same time periods.

CapMetro completed double-tracking a 15-mile segment of the Red Line corridor between the Lakeline and Leander stations in 2023, the first segment of double track planned under Project Connect.[92] As part of the McKalla Station project, completed in 2024, 1.5 miles of double track were constructed between the station area and the CapMetro Rail North Operations Yard in North Austin. And in October 2024, CapMetro signed an agreement with the City of Austin to implement a $32 million project that will add 0.7 miles of double track and a second platform 280 feet long at the Plaza Saltillo station in East Austin.[93] CapMetro received in $18 million RAISE grant from the U.S. DOT for the $32.2 million project, and the City of Austin will provide an additional $900,000. The East Austin double track and station project is anticipated to be complete in 2028.

Introducing new quiet zones. CapMetro placed a quiet zone at North Austin into effect in February 2024 that spans four grade crossings near the new McCalla Station, serving the Q2 Stadium.[94]

Completing construction of the new Broadmoor station, a public-private partnership that will serve a 66-acre mixed-use development called Uptown ATX. The new station is projected to open in 2025 and will replace the existing Kramer station a half-mile away. The existing Kramer station does not have any parking and has limited access. Approximately half the funding for the project will come from Brandywine Realty Trust, the owner of the land and developer of Uptown ATX.

Crestview Connection. CapMetro is currently developing engineering plans for a future Red Line grade separation at Crestview that would lower the existing Red Line commuter and freight rail line to an underpass beneath North Lamar Boulevard. The grade separation would improve conditions at the nearby traffic intersection of North Lamar and

91 https://www.projectconnect.com/projects/red-line.

92 https://www.fox7austin.com/news/capmetro-double-tracking-project-leander.

93 https://www.kut.org/transportation/2024-10-29/capmetro-to-build-second-set-of-train-tracks-in-east-austin.

94 https://www.austinmonitor.com/stories/2024/02/new-cap-metro-train-station-opens-at-q2-stadium-as-quiet-zones-take-effect/.

Airport boulevards for all users and would also facilitate the construction of on-street light rail service. A priority extension (after Phase 1) of the Project Connect light rail system has been identified that would extend the light rail system north from 38t Street to Crestview, with a planned light rail/commuter rail multimodal transfer station constructed at North Lamar and Airport boulevards where the two systems would cross. The grade separation is not currently funded, although CapMetro is actively seeking grant opportunities and funding partnerships for the project.

Long-Range Red Line Improvements

The Capital Area Metropolitan Planning Organization (CAMPO) released its 2045 Transportation Plan in 2020,[95] which included several improvements to the CapMetro Rail commuter system identified as a second phase of Red Line improvements. These include:

- **Platform Extensions**. Red Line stations were built with single-car train platforms but were originally designed with platform footprints to accommodate two-car train platforms in the future. The one-car platforms limit the length of Red Line trains that serve the platforms, and thus the number of riders that can board the train. CapMetro has been moving ahead with a plan to extend platforms at its Red Line stations to accommodate two-car trains, which will double seating capacity.
- **Double Track**. As noted previously, one of the long-term investment scenarios recommended in Project Connect is to double-track the entire Red Line between the Downtown Austin and Kramer stations, and construct sections of double track between the Kramer and Leander stations, enabling peak period frequencies of 15 minutes.
- **New Heavy Maintenance Facility and Additional Trains**. Red Line trains receive routine maintenance and servicing at a "light maintenance" facility in North Austin. Any "heavy maintenance" such as equipment overhauls or major repairs must be performed elsewhere by contractors. In addition, the existing maintenance facility can only accommodate a limited number of trains, which limits the total amount of equipment that can be stored and used on the line, and in turn limits the ability of the Red Line to handle more passengers. CapMetro has recommended a project to construct a heavy rail maintenance facility in Leander that would perform major repairs on Red Line trainsets, cutting repair costs and providing additional equipment storage and servicing capacity, as well as the purchase of four new two-car trainsets to alleviate crowding conditions on rush-hour trains.

Austin to San Antonio Commuter Rail

Several planning studies focused on improving transportation in the I-35 corridor between Austin and San Antonio have included a rail alternative.

As this rail plan was being written, TxDOT was conducting a Planning and Environmental Linkage (PEL) study, the I-35 Austin to San Antonio Link Study, which will identify and evaluate potential safety and mobility improvements along I-35 from SH 45 Southeast in Buda (metropolitan Austin) to CR 382/Cibolo Valley Drive in the greater San Antonio region.[96] The PEL study will identify projects that can be further developed in the schematic design and environmental review phase. The study has a projected completion date of 2025. The study will consider a range of alternatives including:

- Transportation System Management – Low-cost operational strategies to enhance safety, reduce congestion, and improve traffic flow such as traffic signal synchronization, changeable message signs, and incident management.

95 https://www.campotexas.org/wp-content/uploads/2024/06/2045-RTP-Summer-Update.pdf.
96 https://www.txdot.gov/projects/projects-studies/austin/i35-austin-to-san-antonio-pel.html.

- Transportation Demand Management – Strategies to manage or decrease demand for auto-related travel such as transit, carpooling, high occupancy vehicle (HOV) lanes, bicycling, telecommuting, and parking management.
- Future Transportation Corridor (1x1) – One additional freeway lane in each direction, with a lane type to be determined (vehicle, freight, rail, etc.).
- Future Transportation Corridor (2x2) – Two additional freeway lanes in each direction, with lane types to be determined (vehicle, freight, rail, etc.).
- No-Build Alternative – No new improvements.

The PEL study follows another recent transportation study developed for the region in 2019, the Capital-Alamo Connections Study, which was a joint effort between TxDOT, CAMPO and the Alamo Area MPO (AAMPO) to develop a strategy for mobility improvements within the greater Austin-San Antonio region.[97] The study area encompassed a 12-county region including Bastrop, Bexar, Burnet, Caldwell, Comal, Guadalupe, Hays, Kendall, Travis, and Williamson counties, which are represented by both MPOs, and Blanco and Wilson counties which are outside the MPO boundaries. The study established a multimodal approach to managing roadway congestion and improving overall mobility between the Austin and San Antonio regions. Population growth in and between Austin and San Antonio is expected to increase in the coming years, leading to an increase in congestion and travel delay. The I-35 corridor is the main connector between Austin and San Antonio, but opportunities to expand or improve I-35 are limited. For this reason, the study considered possible solutions in addition to adding capacity to I-35.

The purpose of the study was to develop a regional transportation strategy for enhancing mobility through infrastructure, policy, and technology solutions for the greater Austin-San Antonio region. These solutions were organized into short and long-term timeframes for implementation. Although most of the recommendations focused on roadway upgrades and improvements to enhance freight transportation in the region, some strategies pertain to the expansion of transit and further cooperation between the transit agencies of the two cities at each end of the study.

One of the plan's recommendations is to create a Regional Rail Strategy for the movement of people and goods. This could eventually lead to commuter rail expansion. As part of the "Implement Regional Intercity Transit Services" strategy, the study suggests adding or improving rail connections between New Braunfels and San Antonio and between Buda and Austin.[98] The study also recommended establishing a bi-regional passenger rail technical committee to pool resources and coordinate future efforts targeted at increasing passenger rail service in the region.

Potential New Commuter Rail Routes and Services

This section identifies several potential new commuter rail services under development or consideration, backed by local or regional public agencies that have the responsibility for planning, funding, and managing the service. In some cases, the expansion or improvement of commuter rail may depend on the availability of funding, which could include bonds or other sources that require approval through a ballot measure.

97 TxDOT: Project Website: https://www.txdot.gov/inside-txdot/projects/studies/statewide/capital-alamo-connections.html.

98 TxDOT: Joint MPO Transportation Policy Board Regional Workshop Meeting Summary, December 5, 2018: http://ftp.dot.state.tx.us/pub/txdot/get-involved/aus/capital-alamo-connections/120818-jointtac-workshop-summary.pdf.

DART Silver Line

The Silver Line (in the Cotton Belt corridor) is a 26-mile regional rail project managed by DART that is currently under construction, with a projected startup of revenue service in late 2025 or early 2026.[99] The rail line will extend from Dallas/Fort Worth International Airport Terminal B to Shiloh Road in Plano. The Silver Line will use the eastern segment of the Cotton Belt Corridor, a 52-mile rail line linking Fort Worth and Wylie that was purchased by DART in 1990. Trinity Metro's TEXRail commuter rail service, which began in January 2019, uses the western section of the corridor between DFW Airport and downtown Fort Worth. DART's Silver Line will link the growing employment and activity centers along a heavily traveled, east-west crosstown corridor north of central Dallas in the northern part of the DART service area. Commuter rail service on the corridor will be operated with the name "Silver Line," under a resolution approved by the DART board of directors approved on June 18, 2019.[100]

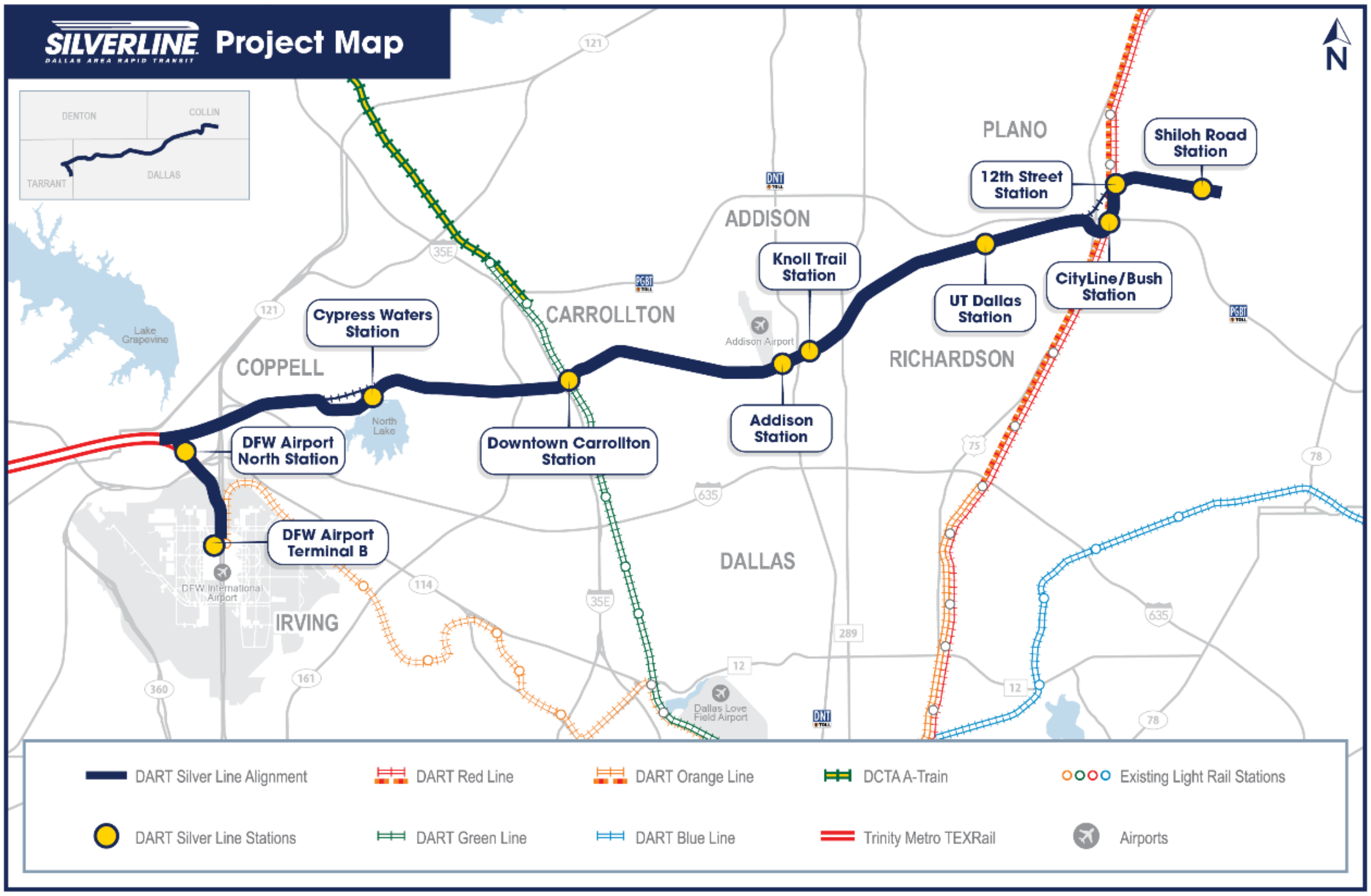
The corridor passes through the cities of Grapevine, Coppell, Dallas, Carrollton, Addison, Richardson, and Plano. DART's Silver Line service also will allow riders to reach central Dallas and additional suburban areas by providing transfer opportunities with DART's hub-and-spoke network of light rail lines at Richardson (Red and Orange Line), Plano (Red and Orange Line) and Carrollton (Green Line), as well as TEXRail at the DFW Airport and DFW North stations. The DFW North Station will include a future "through" platform that will allow direct east-west movements on the Cotton Belt rail corridor to/from Fort Worth. While the project is mostly within DART-owned right-of-way, trains will deviate from the existing railroad corridor at DFW Airport to reach the Terminal B commuter rail station, in the Coppell/Dallas area near North Lake to serve Cypress Waters, in downtown Carrollton where several rail lines intersect, and in Richardson/Plano to serve the CityLine development.

Trains will operate on a double-track alignment serving 10 stations, with initial Silver Line service operated between 6:00 a.m. and 9:00 p.m. at 30-minute peak and 60-minute off-peak headways, although DART anticipates service levels will increase in the future. Stations will be located at DFW Airport, DFW North, Cypress Waters, Downtown Carrollton, Addison, Knoll Trail, University of Texas (UT) Dallas, CityLine/Bush in Richardson, 12th Street in Plano (which includes a new infill LRT Station on the existing DART Red and Orange Line), and Shiloh Road in Plano. (Two additional proposed stops at Coit and Preston Road were eliminated from the final plan.) The Silver Line will operate under a quiet zone ordinance throughout much of the segment between Plano and Richardson. Silver Line dispatching will be carried out at the Herzog office in Irving (primary) and the TEXRail Mahaffey Maintenance Facility (secondary). Figure 3-23 shows the Silver Line route, station, and connections with other rail transit lines.

99 DART Reference Book, May 2024: https://dartorgcmsblob.dart.org/prod/docs/default-source/dart-facts/dartreferencebook.pdf?sfvrsn=fba0cc81_7.

100 https://www.dart.org/news/news.asp?ID=1405.

Figure 3-23: Cotton Belt Corridor Regional Rail Map



Source: DART

A succession of transportation plans prepared by DART had recommended development of the Cotton Belt rail service as a priority project to serve a travel corridor that had frequently been identified as heavily congested and in need of additional transportation capacity and mobility options. DART's 2030 Transit System Plan, published in 2006, stated that passenger rail service on the corridor between DFW Airport and Plano, operating on 20-minute peak and 60-minute off-peak frequencies, would be the most cost-effective and direct means of serving the crosstown corridor.[101] DART advanced the project's proposed startup from 2035 to 2022 in its FY17 20-Year Financial Plan, after the agency decided to finance the project by taking advantage of the federal Railroad Rehabilitation and Improvement Financing (RRIF) loan program.[102] By funding the commuter rail startup with a low interest rate RRIF loan, DART could use its bond-issuing capabilities to finance other rail transit expansion projects in the region. The project's estimated $2.098 billion startup cost will be paid for with a $908 million RRIF loan awarded by U.S. DOT's Build America Bureau in December 2018, with additional funds provided by funding partners and local money. In February 2021, DART refinanced the loan at a 2.26% interest rate, resulting in $190 million savings over the loan term.[103]

DART Silver Line commuter trains will operate on tracks that are shared with freight trains for nearly the entire route. Freight service on the line is provided by four different short line and regional railroads, including the Dallas, Garland

101 Fact Sheet: Expanding Passenger Rail Through Innovation, NCTCOG, September 2011.

102 https://www.dart.org/about/dartreferencebookmar18.pdf.

103 https://dartorgcmsblob.dart.org/prod/docs/default-source/dart-facts/dartreferencebook.pdf?sfvrsn=fba0cc81_7.

& Northeastern Railroad in the Addison and Carrollton portions of the corridor, and the Fort Worth & Western Railroad in Grapevine and Coppell. As a result, the commuter equipment will consist of FRA-compliant DMU trainsets (Figure 3-24). In June 2019, DART announced it had signed a contract with the Swiss car builder Stadler worth $119 million for the construction of eight self-propelled FLIRT (Fast Light Innovative Regional Train) DMU trainsets to be used on the Silver Line and the design of an equipment maintenance facility for the fleet.[104] Each trainset will consists of five permanently coupled cars, four for passengers plus a fifth power pack in the middle, and will accommodate approximately 230 seated and 255 standing passengers.[105] The diesel engines are compliant with EPA Tier 4 ultra-low emission standards. Five trainsets will be used in daily revenue service and three will sets will be spares. The Stadler vehicles were delivered between March 2023 and September 2023. DART is constructing a Shiloh Road maintenance facility in Plano for vehicle storage, operations, and maintenance of the eight Stadler DMUs. Stadler has built the self-propelled DMU trainsets currently in use in Texas on Denton County's A-Train, Austin Capital Metro's Red Line, and Trinity Metro's TEXRail.

Figure 3-24: DART Silver Line DMU Train

Source: DART

Three federal agencies have been involved in oversight of the Cotton Belt Project. The FTA serves as Lead Agency, the Federal Aviation Administration (FAA) is a cooperating agency (FAA has jurisdiction over DFW Airport and Addison Airport), and the FRA is a participating agency. In accordance with NEPA, DART developed a Draft EIS for the Cotton Belt Corridor Regional Rail project, which was made available to the public for review and comment on April 20, 2018. Those comments were incorporated into FEIS. In addition, the DART Board held a Service Plan amendment public hearing on March 27, 2018, and subsequently approved the Service Plan Amendment for the project on August 28, 2018. The Service Plan Amendment removed two stations and added three grade separations from what had been proposed in the DEIS. These changes were also incorporated into the FEIS. The combined Final EIS/Record of Decision

104 https://www.railwayage.com/passenger/commuterregional/dart-flirts-with-stadler-for-119m-contract/.

105 https://www.dart.org/about/plans-projects-and-initiatives/expansion/silver-line#discoverMore.

was approved on November 9, 2018. Residents along the corridor, as well as City Council resolutions for the project, requested consideration of additional walls and betterments in residential areas where noise barrier mitigation was not deemed warranted in the DEIS. The DART Board approved a Cotton Belt Corridor Betterments Program on August 28, 2018, to include potential additional walls or other betterments for residential areas along the corridor.

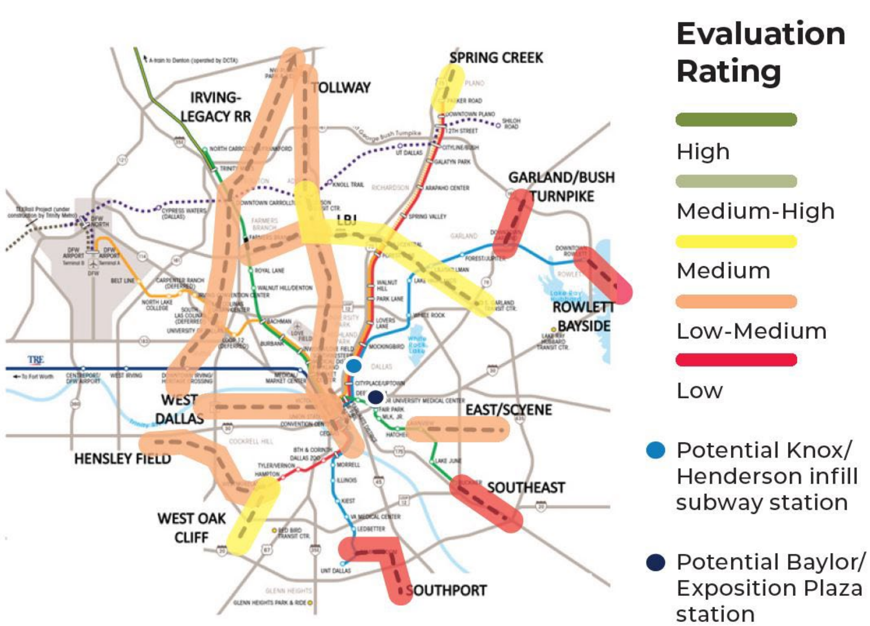
Potential Dallas/Fort Worth Regional Rail Corridors

DART 2045 Transit System Plan

DART's 2045 Transit System Plan includes several goals and objectives related to improving service and system expansion of public transit in North Texas, in order to meet the transportation needs of a region that is projected to add nearly 4 million new residents and approximately 2.2 million jobs by the year 2045.[106] DART's plan includes seven goals grouped under the subject area "Service and Expansion," one of which (Goal 7) calls for advancing the development of potential high-capacity transit corridors where the benefits and costs of providing transit service demonstrate added value and accommodate future regional growth.

For the 2045 plan, DART completed a High-Capacity Corridor Screening Evaluation Report to establish new criteria and determine viable corridors that may meet demand in a cost-effective manner across different parts of the region (Figure 3-25). The report notes that, in many cases, transit-supportive land use plans and increased density will be needed to improve the performance and viability of the corridor for transit service. In locations with short extensions, a broader regional project or alternative modes are more suitable, the report notes. The plan recommends preparing studies of promising high-capacity transit corridors to assess modal options, supportive land use plans, and trade-offs in the long term before committing to a specific mode or corridor investment. In addition, the plan recommends advancing a select number of Core Frequent bus routes as Bus Rapid Transit (BRT) projects to help meet future needs.

Figure 3-25: DART High-Capacity Corridor Evaluation



Source: DART

106 https://www.dart.org/docs/default-source/expansion/dart_tsp2045_2022_final.pdf.

The plan concludes with four action items to support the goal of advancing the development of potential high-capacity transit corridors. They are:

- Develop a policy to guide future corridor expansion and infill station investments that incorporates industry best practices, federal funding criteria, and local criteria.
- Complete an assessment of regional rail rights-of-way to identify strategic opportunities for usage rights or acquisition that would preserve high-potential corridors for future rail expansion.
- Complete studies to identify and preserve opportunities for high-capacity transit within highway corridors.
- Incorporate recommended right-of-way acquisitions into the 20-Year Financial Plan to preserve future rail expansion and/or BRT opportunities.

NCTCOG Role in Regional Planning

In 2005, the NCTCOG produced a comprehensive Regional Rail Corridor Study[107] in partnership with DART, Trinity Metro (known as The T at that time), and DCTA. The study's goal was to provide data and recommendations to decision makers on the best way to implement expanded passenger rail and other transit services in 11 corridors around the Dallas/Fort Worth region. While the regional planning effort was underway, DCTA was moving forward in developing the A-train service. Immediately following the regional effort, The T initiated a strategic plan, and subsequent corridor-specific planning and engineering efforts, to pursue implementation of the additional corridors identified in the regional plan from southwest Fort Worth, through downtown Fort Worth, and into the north end of DFW International Airport, now in operation as TEXRail. Since the plan's publication, NCTCOG has actively pursued regional agreements to advance passenger and rail transit development and connections to and from the region and initiated the next level of individual corridor planning on a number of corridors.

NCTCOG Mobility 2045 Update

NCTCOG is the MPO for the Dallas/Fort Worth region, created by and for local governments to assist in regional planning. In 2022, NCTCOG released its most recent long-range regional transportation plan, called Mobility 2045 Update.[108] The preparation of Mobility 2045 Update was the product of detailed analysis and extensive coordination, and contains detailed recommendations for expanding all modes of transportation, including freight and passenger rail transportation improvements, to best address regional mobility needs. The study notes that the North Central Texas region is projected to add 3.2 million new residents between 2023 and 2045, which is a 39% increase. The plan calls for investing $148.3 billion in transportation projects and programs through 2045. The plan includes $44.9 billion in rail and transit system expansion. The investments recommended in the plan were selected for their ability to provide the greatest improvement to regional mobility compared with their cost, recognizing the constraints of available funding.

Recommended Commuter and Rail Transit Corridors

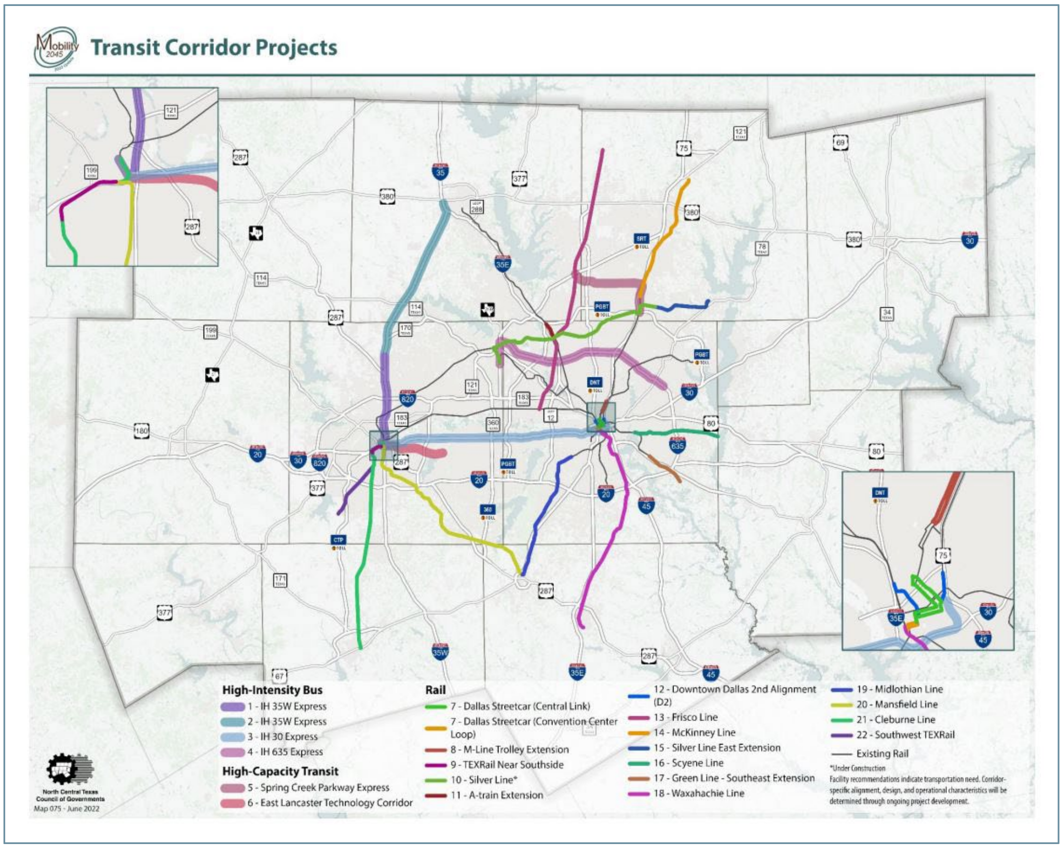
Chapter 6 of the Mobility 2045 Update plan identifies major transit corridors for future development in the region, including high-performance regional passenger rail corridors linking communities in North Central Texas.[109] Figure 3-26 illustrates regional rail corridors and light rail/bus transit corridors recommended for development in the plan.

107 https://www.nctcog.org/getmedia/5f3a087d-d91d-4a8d-b96a-2e8627aab87e/RRCS.pdf.

108 https://nctcog.org/trans/plan/mtp/mobility-2045-2022-update#Chapters%20for%20Download.

109 https://nctcog.org/getmedia/7dc33ef8-90d5-4236-abed-3cecd2a115cc/6-Mobility-Options-2045U.pdf.

Figure 3-26: Mobility 2045 Update Major Transit Corridor Projects



Source: NCTCOG Mobility 2045 Update, Appendix E

Many of the proposed regional passenger corridors are located along active freight rail corridors. Regional rail corridors vary in existing conditions, future travel demand, interaction with freight, financial requirements, and other factors; therefore, they reflect different levels of opportunities for implementation. As a result, the plan identifies potential corridors rather than distinct projects.

Following the opening of TEXRail in 2019, 14 additional regional rail projects that have long been recommended for development were incorporated into the Mobility 2045 plan's recommendations and appear on Figure 3-26. NCTCOG recognizes that planning for future rail corridors requires detailed technical analysis, as well as participation from transit agencies and communities to ensure that the right factors are in place to build and operate the system.

With the opening of TEXRail in 2019, 11 additional regional rail projects that have long been recommended for development were incorporated into the plan's recommendations and appear on the figure above. NCTCOG recognizes that planning for future rail corridors requires detailed technical analysis, as well as participation from transit agencies and communities to ensure the right factors are in place to build and operate the system. Table 3-11 summarizes the specific corridors recommended for regional passenger rail development in the Mobility 2045 Update plan, as detailed in the plan's Appendix E (Mobility Options).[110]

110 https://nctcog.org/getmedia/3e294f6e-8081-4612-8979-ea83c07494b1/E-Mobility-Options_1.pdf.

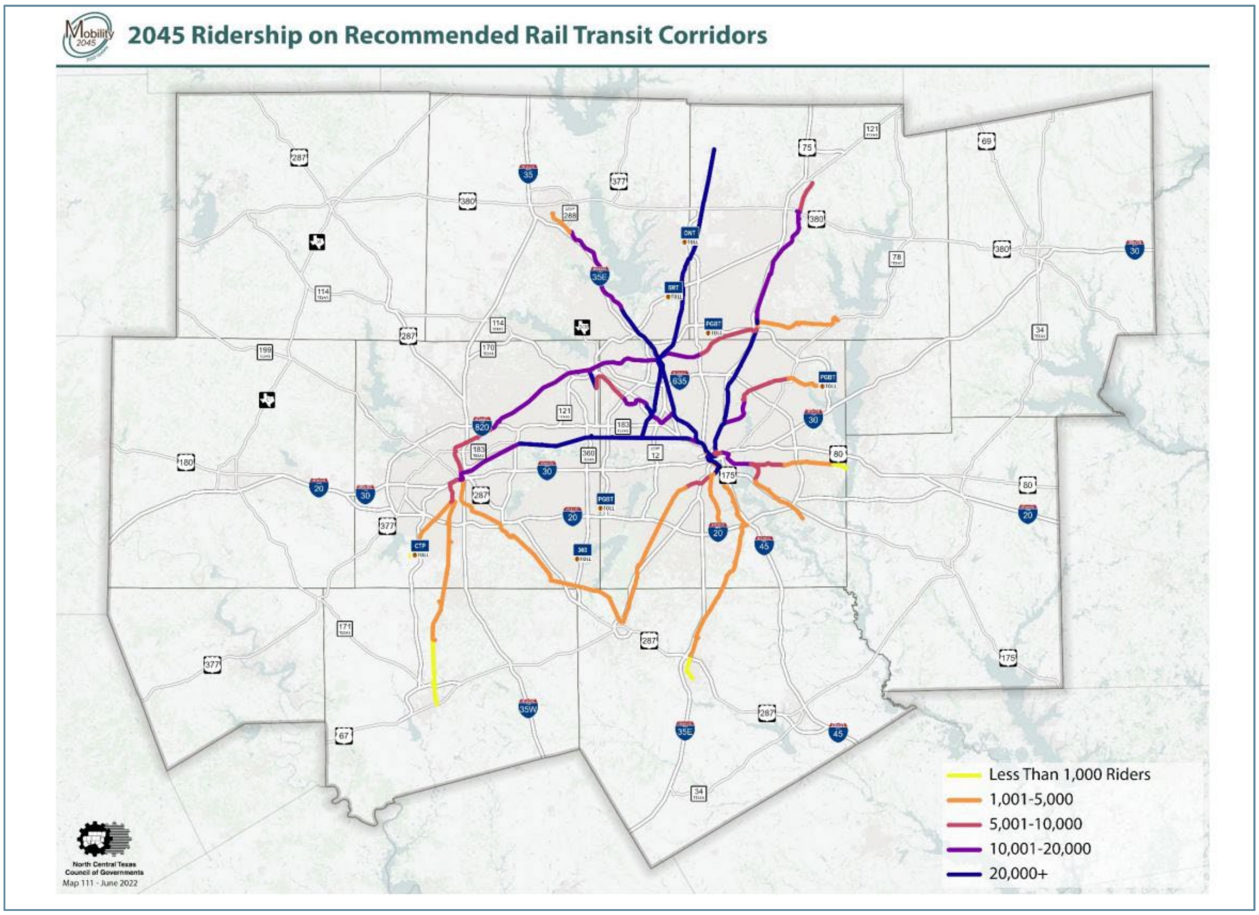
Table 3-11: North Texas Regional Rail Corridors Recommended in Mobility 2045 Update

Corridor	Endpoints	Estimated Length (miles)	Recommending Agency	Projected Capital Cost ($ millions)
Southwest TEXRail Extension	T&P Terminal to Fort Worth Medical District	2	Trinity Metro	$120
Silver Line (former Cotton Belt)	DFWIA Terminal A/B to Shiloh	26	DART	$1,899
A-train South Extension	Trinity Mills to Carrollton (Belt Line)	2	DCTA	$125
Frisco Line	Downtown Irving/ Heritage Crossing Station to City of Celina	37	RRCS/NCTCOG	$2,909
McKinney Line	Plano (Parker Road) to McKinney North	18	RRCS	$,1,817
Silver Line East Extension	Shiloh to Wylie	9	NCTCOG	$908
Scyene Line	Lawnview to Masters	4	NCTCOG	$404
Scyene Line	Masters to Lawson Road	8	NCTCOG	$807
Green Line Southeast Extension	Green Line (light rail) extension between Buckner Blvd. and South Belt Line Road	6	NCTCOG	$606
Waxahachie Line	Downtown Dallas to Waxahachie	31	RRCS	$2,827
Midlothian Line	Westmoreland to Midlothian	18	RRCS	$1,817
Mansfield Line	Midlothian to Fort Worth Central Station	30	NCTCOG	$2,736
Cleburne Line	Fort Worth Central Station to Cleburne Intermodal Transportation Depot	30	NCTCOG	$2,371
Southwest TEXRail Extension	Fort Worth Medical District to McPherson	9	Trinity Metro	$$980
High-Speed Transportation Corridor	Downtown Fort Worth to Downtown Dallas	32	FRA	$4,000

Source: North Central Texas Council of Governments, Mobility 2045 Update plan, Appendix E

Among the lines listed in the table above, the plan estimates that the Frisco Line and the McKinney Line have the highest ridership potential. The study also suggests that corridors with higher projected ridership that are located in active freight corridors with good track conditions (such as the Frisco Line) may be good candidates for prioritized implementation. Track infrastructure costs may be comparatively lower than on other routes, which could provide opportunities for phased interim service on a portion of the line while the full buildout is being completed. By contrast, corridors not located on active freight corridors or with poor track condition typically require a full buildout before implementation and comparatively higher capital costs, which the plan estimated to be $45 million to $50 million per mile.[111] Favorable ridership projections coupled with lower project costs are strong factors for FTA support.[112] Figure 3-27 shows the projected ridership in the year 2045 on the rail corridors recommended for development in the plan.

Figure 3-27: Projected 2045 Ridership on Recommended DFW-Area Transit Corridors



Source: NCTCOG Mobility 2045 Update, Appendix E

Recommended High-Speed Rail Corridors

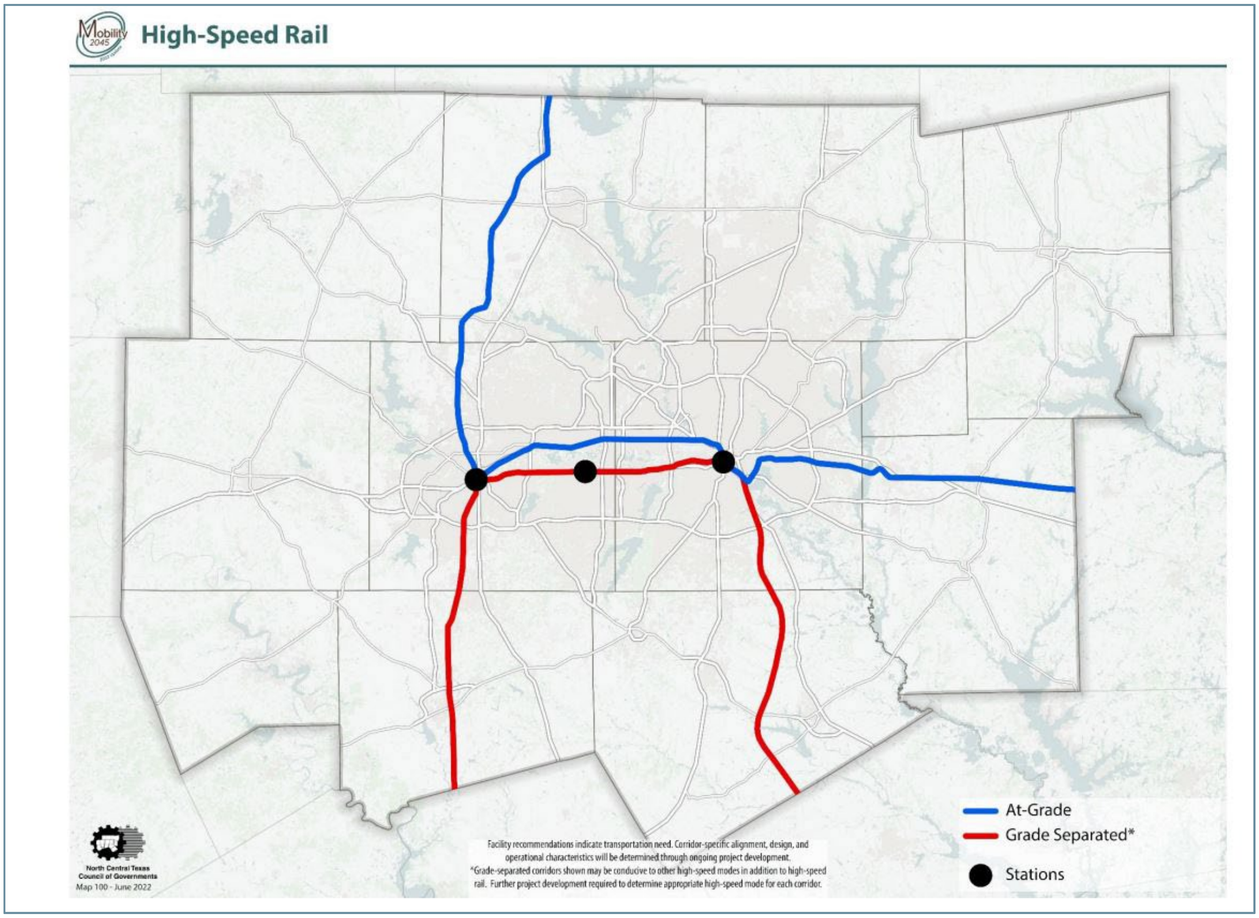
The Mobility 2045 Update plan also identifies potential high-speed rail lines serving Dallas and Fort Worth, although the plan does not specify exact routes. The plan recognizes that North Central Texas could become a potential hub for high-performance passenger routes serving different regions, and that a need exists for the integration of high-speed rail and higher-speed rail in the region. The Mobility 2045 Update plan includes the current high-speed rail initiatives proposed for the region, as well as other potential conventional or higher-speed passenger routes. The plan

111 https://nctcog.org/getmedia/7dc33ef8-90d5-4236-abed-3cecd2a115cc/6-Mobility-Options-2045U.pdf.

112 Email correspondence from Curvie Hawkins, Assistant Vice-President, Planning, Fort Worth Transportation Authority, December 10, 2014.

recommends constructing both at-grade high-speed passenger rail and a grade-separated high-speed transportation rail link between Dallas and Fort Worth that would connect existing and planned high-speed and higher-speed intercity passenger rail services. The recommended grade-separated high-speed rail corridor, identified in Figure 3-28, includes stations in downtown Dallas, Arlington, and downtown Fort Worth, and would permit one-seat-ride opportunities and passenger rail connectivity among the potential services. NCTCOG estimates that construction of a grade-separated high-speed rail corridor linking Dallas and Fort Worth could cost $4 billion.

Figure 3-28: Mobility 2045 Update High-Speed Rail Recommendations



Source: NCTCOG Mobility 2045 Update, Chapter 6

Regional Rail Corridor Development

The Mobility 2045 Update envisions a long-term buildout of a high-performance rail transit network linking communities throughout North Central Texas. Due to the high cost of implementing new light-rail corridors compared to regional rail (approximately half the capital cost of a light-rail corridor), the number of new light-rail corridors expected in the Dallas-Fort Worth region is limited. (The only new light-rail project included in the Mobility 2045 Update plan was D2, DART's planned light-rail tunnel in downtown Dallas, to add core capacity to accommodate increasing peak period demand, enabling the operation of more frequent peak service to and through downtown Dallas. However, in 2023, DART removed the D2 project from its FY 2024 20-year financial plan, owing to post-COVID changes in ridership and travel patterns.[113]) To accommodate the continued expansion of the rail transit network, most of the plan's recommended rail corridors in the Dallas-Fort Worth region are anticipated to be "regional rail"

113 DART Reference Book, May 2024. https://dartorgcmsblob.dart.org/prod/docs/default-source/dart-facts/dartreferencebook.pdf?sfvrsn=fba0cc81_7.

instead of "light rail" due to the cost differential and the presence of active freight rail traffic on those corridors. The plan also notes that creating seamless connections between this growing regional rail network and the existing light-rail network and finding opportunities to provide passengers with a "one-seat" ride wherever possible is critical to the efficient operation of the rail system as a whole. Further analysis and coordination with existing transit authorities is required to explore this potential.

NCTCOG had previously completed conceptual engineering and funding studies for the Frisco, McKinney, and Waxahachie corridors included in the Mobility 2045 Update plan, as detailed below. The McKinney and Waxahachie corridors have seen no further action. However, NCTCOG completed a new planning study for the Frisco Corridor in 2021 that evaluated the potential for establishing regional passenger rail service along the corridor between Irving and Celina.

Frisco Regional Rail Corridor

NCTCOG's Irving to Frisco Corridor Study,[114] completed in 2021, analyzed potential costs and ridership gains from establishing regional rail service in the 37-mile Frisco Corridor. The Frisco Corridor extends from the TRE station in downtown Irving northward to Celina. DART owns the segment of the corridor right-of-way between Irving and Carrollton and BNSF owns the corridor right-of-way north of Carrollton. BNSF considers the corridor an integral part of its national freight rail network and operates freight rail service on the line daily. The section of the corridor in Denton County is also included as a priority future rail corridor in the DCTA Service Plan. Figure 3-29 shows a map of the corridor, with proposed station areas.

The Frisco Corridor rail could connect with the following existing rail services and proposed rail projects:

- TRE commuter rail service between Dallas and Fort Worth, connecting at Irving
- DART Green Line LRT service to downtown Dallas, connecting at Carrollton
- DART Silver Line commuter rail service to DFW International Airport, currently under construction, connecting at Carrollton
- DCTA "A-train" (when service extends from the Trinity Mills Station to the Downtown Carrollton Station)

114 https://nctcog.org/getmedia/6d9a4734-e5a7-446b-b3d5-d3e1856c09e0/I2F-Rail-Corridor-Report-09302021.pdf.

Figure 3-29: Proposed Frisco Regional Rail Corridor

Source: NCTCOG

The study examined projections of Frisco Line ridership as a standalone corridor, with passengers making cross-platform transfers to connecting systems, and also analyzed projected ridership increases in scenarios that considered the effects of a hypothetical interlined service. Under the potential interlined scenarios, Frisco Line trains would

continue their trips on TRE tracks to Dallas or Fort Worth, or Silver Line tracks to Fort Worth, providing one-seat rides for Frisco Line passengers to the region's major city centers.

The study developed estimated project implementation costs and annual operating and maintenance (O&M) costs for three alternatives, as shown in Table 3-12. Service levels for all alternatives were assumed to be the same, with 20-minute peak period and 60-minute off-peak headways (time between trains in each direction) on weekdays only. The trains are assumed to be modern DMU vehicles similar to what DART will be using to operate the Silver Line.

Table 3-12: Frisco Line Cost Estimates

Alternative	Length (Miles)	No. of Stations	No. of Vehicles	Est. Project Implementation Cost (Year 2021 $M)	Capital Cost/Mile ($M)	Est. Annual O&M Cost ($M)
Downtown Irving to Downtown Celina	37.4	12	10	$1,553.0	$41.52	$24.3
Downtown Irving to Downtown Prosper	31.0	11	8	$1,324.4	$42.72	$20.1
Downtown Irving to Frisco (Panther Creek Pkwy.)	27.9	10	7	$1,206.0	$43.26	$18.1

Source: NCTCOG, Irving to Frisco Study, 2021

McKinney Regional Rail Corridor

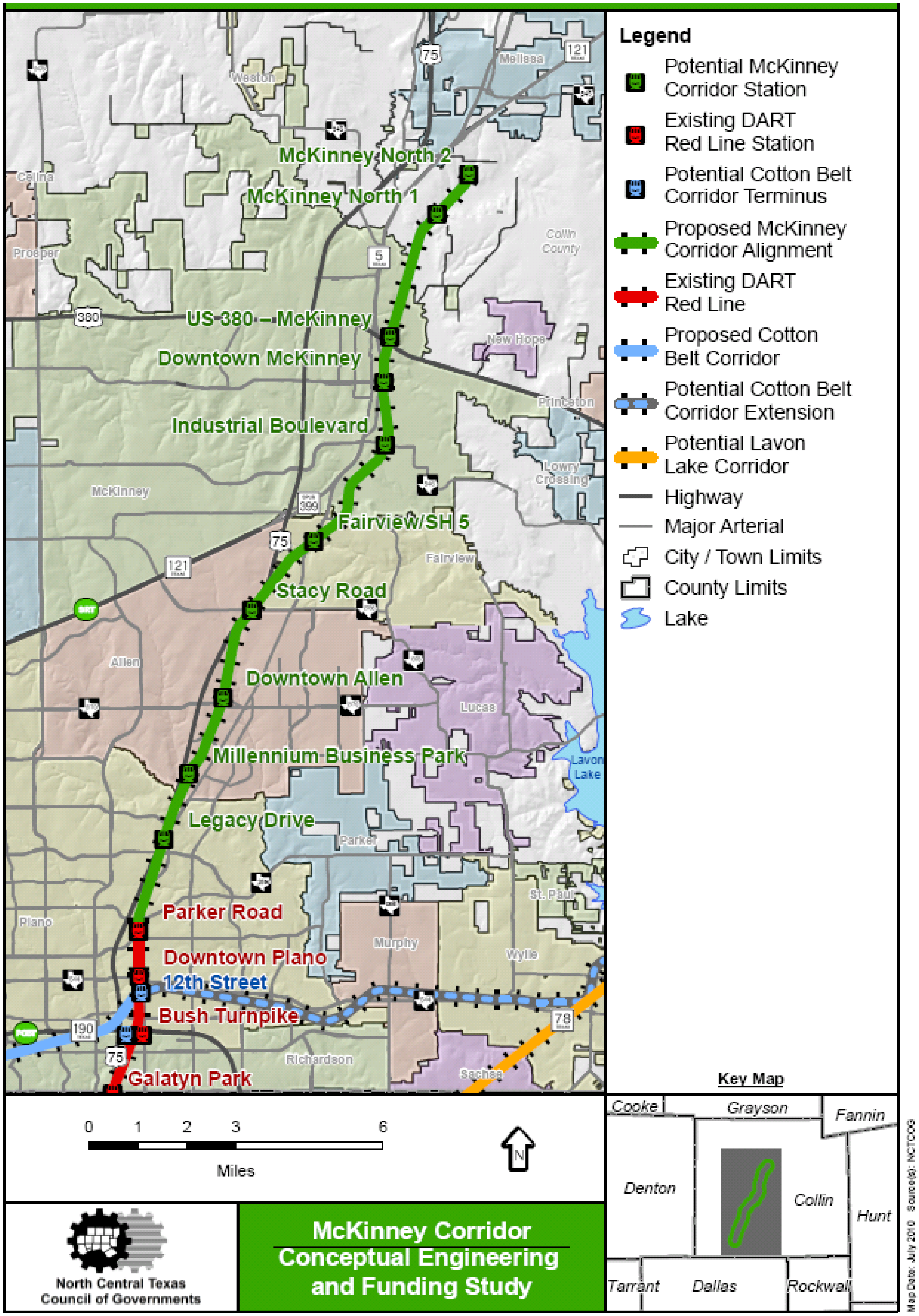
In July 2010, NCTCOG concluded a conceptual engineering and funding study for a proposed regional rail service in the 17.7-mile McKinney Corridor, an existing rail corridor extending from Plano northward to McKinney, as illustrated in Figure 3-30. DART owns the corridor. The McKinney Corridor rail could connect with the following existing rail services and proposed rail projects:

- Existing DART Red Line LRT rail service to downtown Dallas.
- DART Silver Line commuter rail service at Plano.

NCTCOG's 2010 conceptual engineering and funding study considered LRT trains, DMU equipment, and conventional commuter trains. The study concluded that either light rail or DMU equipment would be the most appropriate options for the corridor. The 2030 daily rail passenger volume projected for the McKinney Corridor ranged from a low of 3,830 for an eight-station LRT route alternative that combined service with a Cotton Belt DMU service, and a high of 5,560 for an 11-station LRT route alternative that combined service with the DART Red Line.[115] The conceptual study provides a foundation for future environmental studies required for implementation and identifies potential funding strategies to reach the implementation phase. The corridor is included in NCTCOG's Mobility 2045 Update regional transportation plan.

115 North Central Texas Council of Governments, McKinney Corridor: Conceptual Engineering and Funding Study, May 2010.

Figure 3-30: Proposed McKinney Rail Corridor



Source: NCTCOG

Waxahachie Regional Rail Corridor

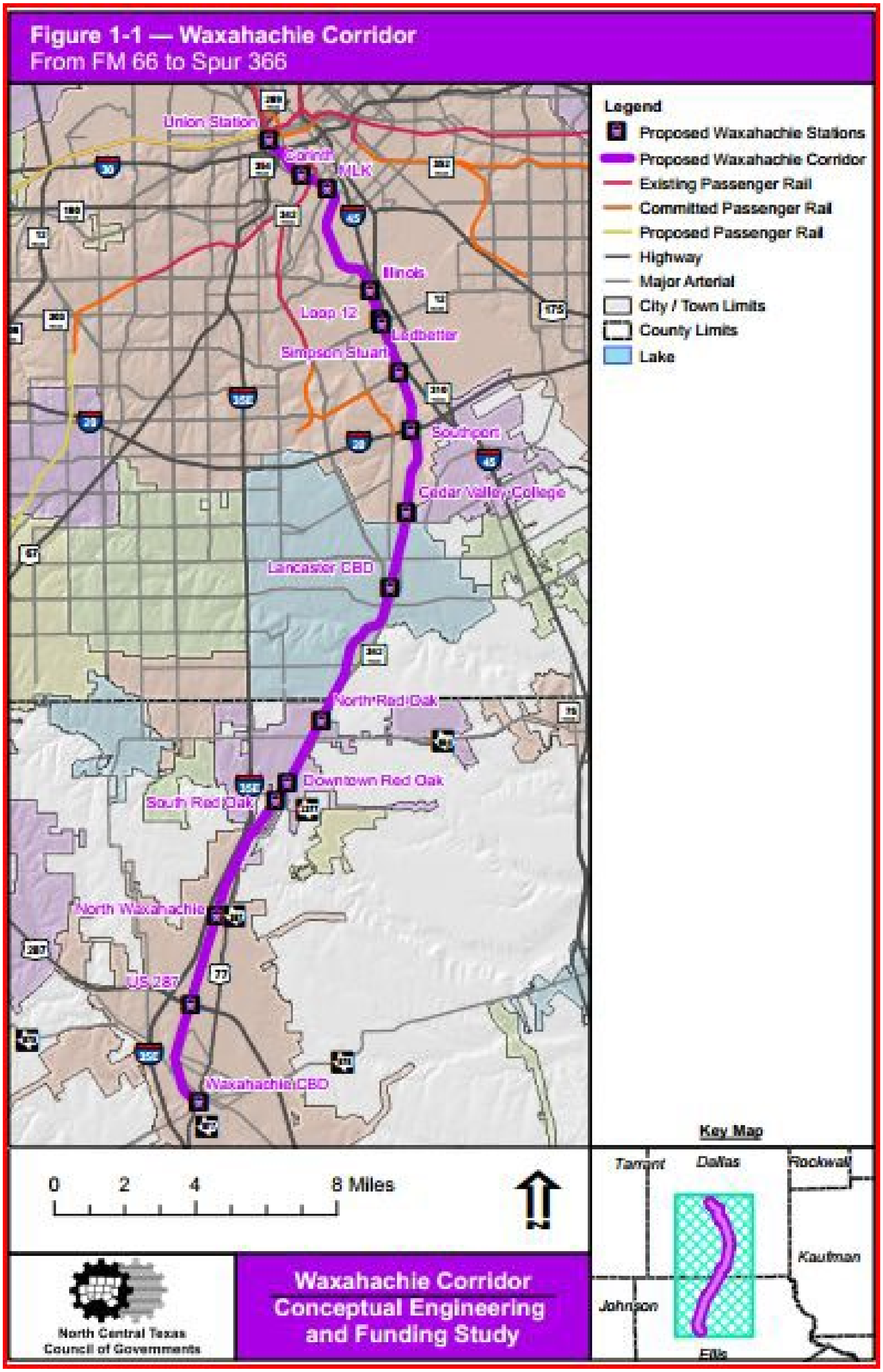
In November 2010, NCTCOG completed a conceptual engineering and funding study for a proposed regional rail service in the Waxahachie Corridor, an existing rail corridor extending from Dallas south to Waxahachie, as illustrated in Figure 3-31. BNSF owns the right of way from the downtown Waxahachie Station to Forest Lane/Martin Luther King Jr. Boulevard in Dallas, and UP owns the right of way from Forest Lane/Martin Luther King Jr. Boulevard to Union Station. The corridor was included in NCTCOG's long-term metropolitan transportation plan Mobility 2030–2009 Amendment and remains in the new Mobility 2045 Update regional transportation plan. The Waxahachie Rail Corridor would connect with the following existing rail services at EBJ Union Station in Dallas:

- Amtrak intercity passenger rail.
- TRE commuter rail.
- DART light rail.

NCTCOG's 2010 conceptual engineering and funding study initially considered LRT, but that equipment option was replaced early on with five other equipment alternatives comprised of either DMU trains or conventional commuter rail equipment. The 2030 daily rail passenger volume projected for the Waxahachie Corridor in the study ranged from a low of 2,100 riders for a six-station, 20.7-mile route with a terminal in Southport, to a high of 5,900 estimated daily passenger trips for a 16-station, 64.5-mile route alternative that continued west from Union Station in Dallas on the TRE commuter rail line and terminated at the Fort Worth T&P Station. Two 30.9-mile alternatives with a Union Station terminus in Dallas produced forecasted passenger trips of 4,300 to 4,600 daily in 2030.[116] The conceptual study provides a foundation for future environmental studies required for implementation and identifies potential funding strategies to reach the implementation phase.

116 North Central Texas Council of Governments, Waxahachie Corridor: Conceptual Engineering and Funding Study, November 2010.

Figure 3-31: Proposed Waxahachie Rail Corridor



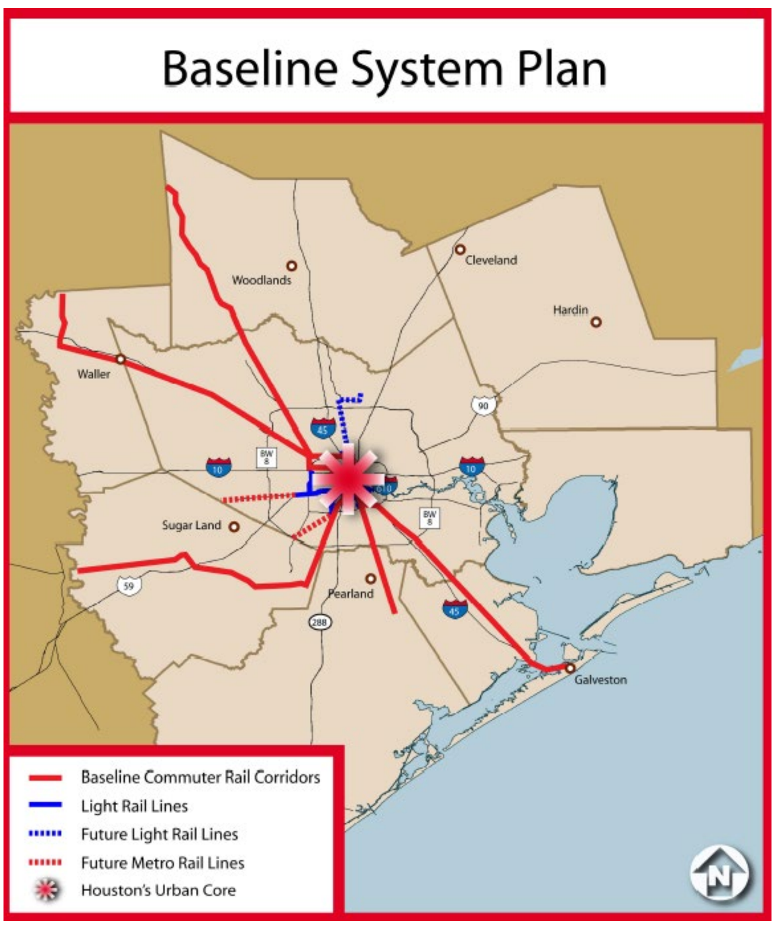
Source: NCTCOG

Houston-Galveston Commuter Rail Initiatives

Regional transportation plans for Houston and surrounding areas are regularly developed and updated by the Houston-Galveston Area Council (H-GAC), a region-wide voluntary association of local governments in the 13-county Gulf Coast Planning Region. H-GAC's Regional Transportation Plan (RTP) serves as a guide for identifying needed projects to maintain the region's existing transportation infrastructure, add capacity, improve mobility, and prioritize future transportation investments. H-GAC considers public transportation and the expansion of high-capacity transit options to be critical solutions for accommodating projected increases in regional population and employment.[117]

In 2008, H-GAC released a Regional Commuter Rail Connectivity Study, evaluating the feasibility of implementing commuter rail service along multiple corridors in its planning area. Five corridors were identified from information gathered from the Houston Freight Study and were ranked by factors such as cost, right of way availability, and freight rail capacities or freight volumes.[118] The study analyzed routing viability along each corridor, potential ridership, potential station locations, and the operability, logistics, and challenges associated with connecting these corridors to the existing and proposed transit network. The corridors shown in Figure 3-32 comprise the report's proposed commuter rail system to be carried forward for additional studies.

Figure 3-32: Potential Houston Commuter Rail Corridors from 2008 H-GAC Study



Source: Houston-Galveston Area Council Regional Commuter Rail Connectivity Study, 2008

117 2045 Regional Transportation Plan. http://2045rtp.com/documents/plan/Chapter-5-Recommendations-Fiscal-Constraint.pdf.

118 Kimley-Horn & Associates, Inc., Regional Commuter Rail Connectivity Study, Houston-Galveston Area Council, September 2008.

One year prior to the release of the commuter rail study, Harris County, the City of Houston, and Fort Bend County created the Gulf Coast Rail District (GCRD), under authority granted by the State of Texas in Section 171 of the Transportation Code. Formed in 2007, the GCRD works with public and private partners to develop and implement a systematic approach for the improvement of the regional freight and passenger rail networks for the benefit of the region’s residents and economy. Since then, H-GAC, GCRD, and the Metropolitan Transit Authority of Harris County (METRO) have continued evaluating three commuter rail corridors identified in the 2008 study: the Hempstead Corridor parallel to U.S. Highway 290 to the northwest; U.S. Highway 90A corridor from Houston to Fort Bend County; and the Gulf Freeway/State Highway 3 corridor from Houston to Galveston.

The initial work to conceptually plan a regional commuter rail system in Houston had focused on the use of existing freight rail tracks. However, in light of the region's strong growth, the Class I railroads have indicated that the freight rail network will not have adequate capacity to include passenger trains. As a result, the GCRD enlisted the assistance of regional planners and engineers and technical experts from the Texas A&M Transportation Institute (TTI) to analyze the situation and the potential for adding commuter services. Based on their additional analysis, GCRD concluded that new passenger rail infrastructure on new right of way would be required.[119]

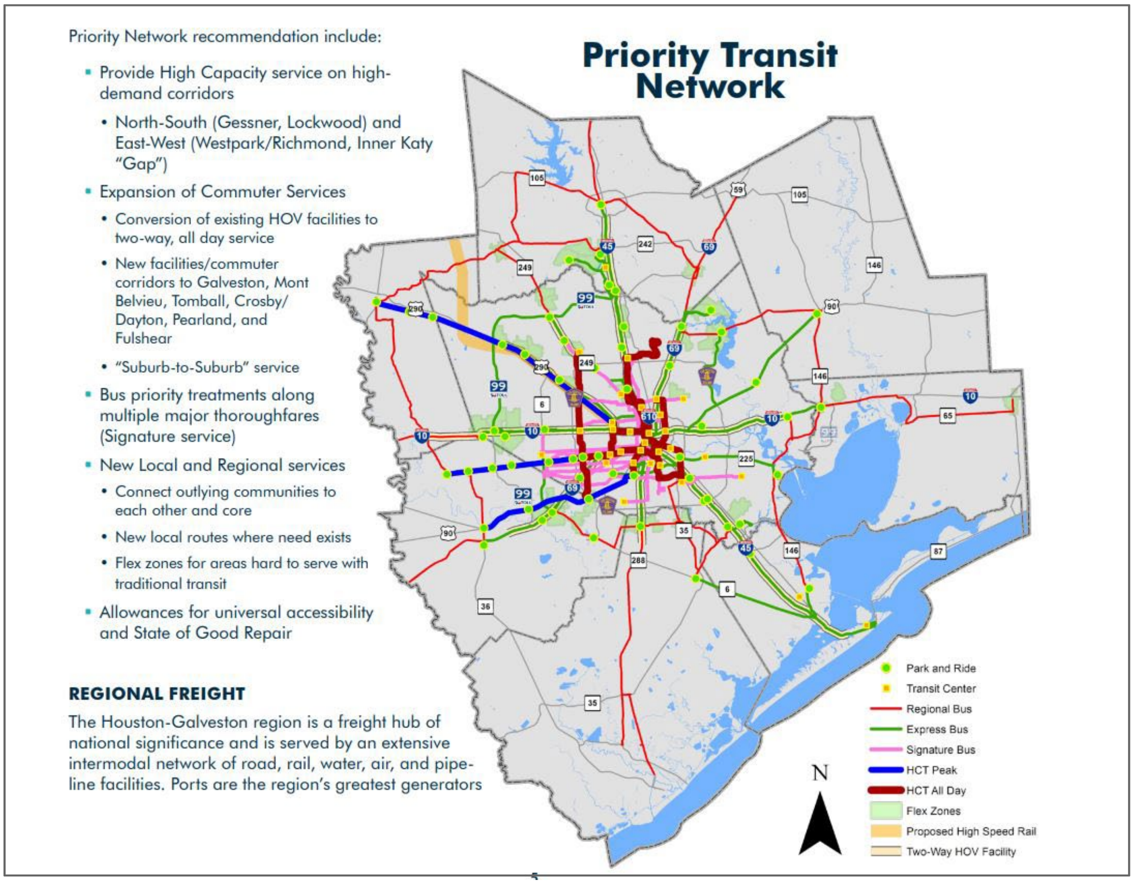
H-GAC’s most recent plan, 2045 Regional Transportation Plan, calls for approximately $47 billion in capital investments across the region to expand transportation, including investments to establish commuter rail lines.[120] However, whereas the previous plan, RTP 2035, had prioritized building a commuter rail link to Galveston,[121] the focus in 2045 RTP has shifted to the west. H-GAC’s 2045 RTP recommends the development of high-capacity peak-period commuter corridors branching out along U.S. Highway 90A to Rosenberg, along the Westpark Tollway and FM 1093 to Fulshear, and along U.S. Highway 290 to Hempstead, as seen in Figure 3-33. Although commuter rail may not ultimately be selected as the preferred technology for each corridor, it is one of the alternatives recommended for consideration.

119 http://www.gcrd.net/hempstead.htm.

120 http://2045rtp.com/documents/plan/2045-RTP-Executive-Summary.pdf.

121 H-GAC 2035 RTP Update Phase III Conformity Appendix E Project Listing, updated July 16, 2013: http://www.h-gac.com/taq/airquality_model/conformity/2013_Phase3/docs/Appendix12.pdf.

Figure 3-33: Houston Commuter Rail Lines Recommended by H-GAC in 2045 RTP



Source: H-GAC (RTP 2040 Appendix A Map Book)

US Highway 290 Corridor Commuter Rail

The proposed US 290 Commuter Line in H-GAC's 2045 Regional Transportation Plan would extend approximately 43.7 miles from Houston METRO's Northwest Transit Center, a multimodal bus transfer station approximately 6 miles from downtown Houston, to Hempstead in Waller County, mainly paralleling the UP right-of-way, with eight stations proposed. The 2045 RTP estimates the startup costs for the service to Hempstead to be $4.4 billion.[122]

Previously in 2012, the GCRD had examined the feasibility of operating commuter rail service on or adjacent to the UP Eureka Subdivision, which runs parallel to U.S. Highway 290 through northwest Harris County to Hempstead.[123] The study evaluated two service options: (1) a short-term startup running 45 miles from Hempstead to the Loop 610 terminal in northwest Houston, where commuters would transfer to buses to reach their employment destinations, and (2) a long-term implementation plan that assumed the commuter line would be completed with an additional 6-mile extension directly into downtown Houston. The study estimated that the short-term option terminating near Loop 610 would generate about 6,000 daily boardings by 2035. Although no specific alignments were studied, when the long-term connection to downtown Houston was included and current plans for parallel highways incorporated, projected daily boardings on the commuter rail line increased to 22,500 by 2035. The study projected that the startup service to Loop 610 would cost approximately $290.7 million to construct within the UP right of way and $6.6 million to operate and maintain annually. Extension of the rail service to downtown Houston was estimated to cost an

122 http://www.gcrd.net/docs/Final%20Report%20February%202012.pdf.

123 http://www.gcrd.net/docs/Final%20Report%20February%202012.pdf.

additional $254.2 million for new rail right of way and construction and would increase annual operating and maintenance costs to $21.3 million. Costs associated with the use of the UP right-of-way were not added, but the report noted those costs would have to be accounted for after UP reviewed freight operational issues and set forth requirements associated with implementing the commuter rail service plan on its right-of-way.[124] According to GCRD, the initial service plan to Loop 610 was not considered financially feasible because of the low estimated ridership, however, the full corridor from Hempstead to downtown Houston was forecast to generate favorable cost-effectiveness metrics.[125] The study did not identify a funding mechanism to construct and operate a Houston region commuter rail system, but advocated corridor preservation.

Westpark Commuter Rail Line

The proposed Westpark Commuter Line in H-GAC's 2045 Regional Transportation Plan would extend approximately 22 miles from Houston METRO's Gessner Park & Ride, along the Westpark Tollway at South Gessner Road, to Fulshear, paralleling the Westpark Tollway, with 10 stations proposed. The 2045 RTP estimates the startup costs for the service to Fulshear to be $2.7 billion.[126]

US Highway 90A/Southwest Rail Corridor Commuter Rail

The proposed US 90A Commuter Line in H-GAC's 2045 Regional Transportation Plan would extend approximately 27.4 miles from Rosenberg to Houston METRO's Fannin South Transit Center and park and ride, just south of the NRG Arena and Texas Medical Center, currently served by the METRORail Red Line light rail and multiple bus routes. The corridor would parallel the UP right-of-way, with 12 stations proposed. The 2045 RTP estimates the startup costs for the service to Fulshear to be $8.4 billion.[127]

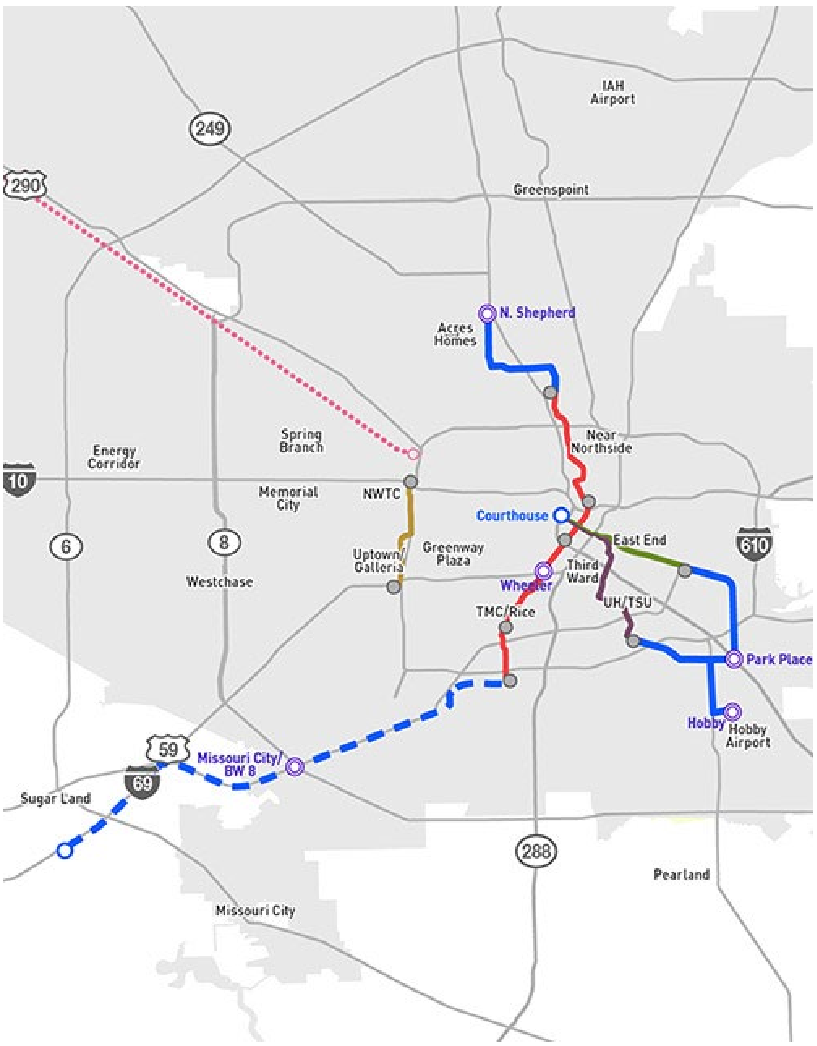
In 2024, H-GAC and GCRD began a feasibility assessment for the corridor, the US 90A Transit Corridor Study.[128] The purpose of the study is to assess the technological and economic feasibility of establishing and operating transit service along the US 90A Highway corridor, using modal options including light rail transit and bus rapid transit The goal of the study is to generate feasible and reasonable transit alternative(s) for this corridor that can be advanced into more detailed study and analysis, with an eye toward implementation. The study is expected to conclude in 2025.

In 2011, Houston METRO prepared a Draft Environmental Impact Statement (DEIS) for the US 90A/Southwest Rail Corridor project, evaluating a route extending from the Texas Medical Center in Houston west to Missouri City.[129] METRO completed the DEIS and associated conceptual engineering the following year, and held public meetings in June 2012. However, the METRO Board of Directors subsequently placed the project on hold in September 2012 to reassess investment priorities in the region through the Transit Re-imagining Plan.[130] The project had been forecast to generate a daily ridership of 13,000.[131] The corridor is currently served by bus commuter service. With the conclusion of the DEIS, METRO did not identify a schedule or the resources for further implementation.

124 Klotz Associates, Inc. and TranSystems Corporation, Conceptual Engineering Study for the Hempstead Corridor Commuter Rail for Gulf Coast Rail District, February 2012.
125 Presentation by Gulf Coast Rail District Board Member Nancy Edmonson before Transportation Policy Council for the Houston-Galveston Transportation Management Area, June 22, 2012.
126 http://2045rtp.com/documents/plan/Appendix-D-Fiscal-Constraint-and-Project-Listing-04-11-23.pdf.
127 http://2045rtp.com/documents/plan/Appendix-D-Fiscal-Constraint-and-Project-Listing-04-11-23.pdf.
128 https://engage.h-gac.com/us-90a-transit-corridor-study?tool=map.
129 http://www.ridemetro.org/AboutUs/Board/working_meetings/2012/Presentations/052412/Capital/Presentation-US-90A.pdf.
130 http://www.ridemetro.org/CurrentProjects/90A-Southwest_RailCorridor.aspx.
131 http://ridemetro.granicus.com/MediaPlayer.php?view_id=2&clip_id=366.

A corridor from Missouri City to Houston that shares common segments with the US 90A corridor is currently included in the METRONext Moving Forward Plan, Houston METRO's $7.5 billion long-range plan to implement capital improvements to its transit system to meet increased travel demand, alleviate road congestion, and improve regional connectivity and mobility.[132] The plan was approved by Harris Cunty voters in 2019. Although some projects from the long-range plan were later removed, including several bus rapid transit expansion projects, a rail link from Fannin South to Missouri City still remains in the METRONext Moving Forward plan (Figure 3-34), and is shown as a dashed blue line on project maps with an explanation in the legend that identifies the route as a "future MetroRAIL potential partnership."[133]

Figure 3-34: Proposed 90A Rail Line and other METRORail Expansions



Source: Houston METRO

Galveston Commuter Rail

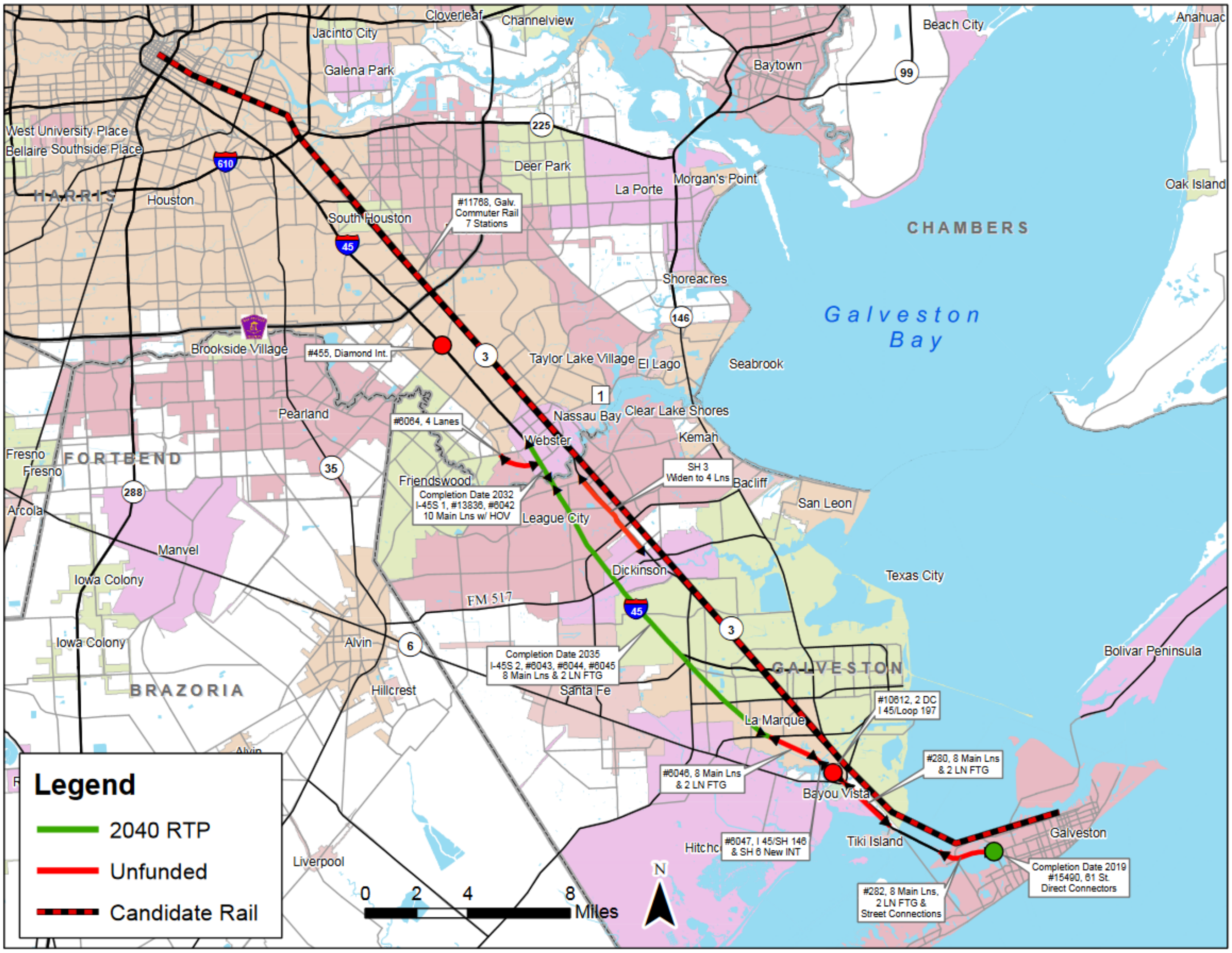
H-GAC's previous regional transportation plan, the RTP 2040, had also included the SH3 Commuter Rail project, a proposed 50-mile rail link along State Highway 3, with seven stations, from Houston METRO's Intermodal Transit Terminal to the Galveston Cruise Terminal, as shown in Figure 3-35. The project had been recommended in H-GAC's

132 https://www.ridemetro.org/about/metronext/moving-forward-plan#metro-next-plan-maps-active-modal.

133 https://www.ridemetro.org/about/metronext/moving-forward-plan#metro-next-plan-maps-active-modal.

RTP 2035, then was relabeled in the RTP 2040 study as a "Candidate Rail" project that could fill other identified needs, and with no recommended completion date.[134] The RTP 2040 had estimated the project's implementation cost to be $200 million, but the project is unsponsored.

Figure 3-35: Proposed Galveston Commuter Rail Line



Source: H-GAC

The City of Galveston and Galveston County had previously sponsored an alternatives analysis of potential transit investments in the corridor connecting Houston and Galveston along the Gulf Freeway (Interstate 45 South) and State Highway 3. The alternatives analyzed included express bus and bus rapid transit in either the Gulf Freeway or State Highway 3 corridors, as well as commuter rail service along the UP right-of-way. The study was published in June 2010 and concluded that local and federal funding was not currently available for the large capital improvements that would be needed to implement either bus rapid transit or commuter rail. The study recommended an implementation strategy that recognized commuter rail as the locally preferred alternative in the long-term, but recommended development of bus service along State Highway 3 to link communities in the corridor as a short-term improvement option. Mid-term improvements were also suggested, in the form of capital improvements in the corridor that would support the implementation of commuter rail in the future, such as grade separations and park and ride facilities at

134 RTP 2040 Appendix G Corridor Summary Sheets: http://www.h-gac.com/taq/plan/2040/docs/Appendix%20G%20Corridor%20Summary%20Sheets.pdf.

locations that could become rail stations in the long-term. The study recommended that GCRD, Galveston County, and Houston METRO pursue negotiations with UP to purchase or lease the rail corridor right-of-way.[135]

Hidalgo County

Hidalgo County's 2010 population was 775,000 (up from 569,000 in 2000) a 36% increase, which was almost double that of the state's rate of growth. The Hidalgo County MPO had forecast the county population in 2030 would be approximately 1,644,000, or more than double the 2010 population. As a result, the Hidalgo County Commissioners Court created the Hidalgo Commuter Rail District to provide passenger rail services between Brownsville and the urban areas of McAllen-Pharr-Edinburg, following the passage of a 2007 bill authorizing the formation of a commuter rail district along the Texas-Mexico border. The rail district proposed establishing a commuter rail line to meet the needs of the growing population, connecting cities in Hidalgo County and also cities in adjacent Cameron County (Figure 3-36). There are 11 proposed stations located in Mission, McAllen, Edinburg, Pharr, San Juan, Alamo/Donna, Weslaco, and Mercedes.

Hidalgo County conducted a feasibility study for the proposed rail system in August 2011 that included an assessment of station locations, needs assessment, and cost analysis. The study included preliminary ridership projections based on train speed. The ridership was projected to be approximately 30,000 boardings per day with an operating speed of 35 mph. The 2011 study projected implementation of the service would require a $310 million capital investment.[136] The commuter rail district has not identified a source of funding for construction or operations, and the project is currently pending identification of a viable funding strategy.

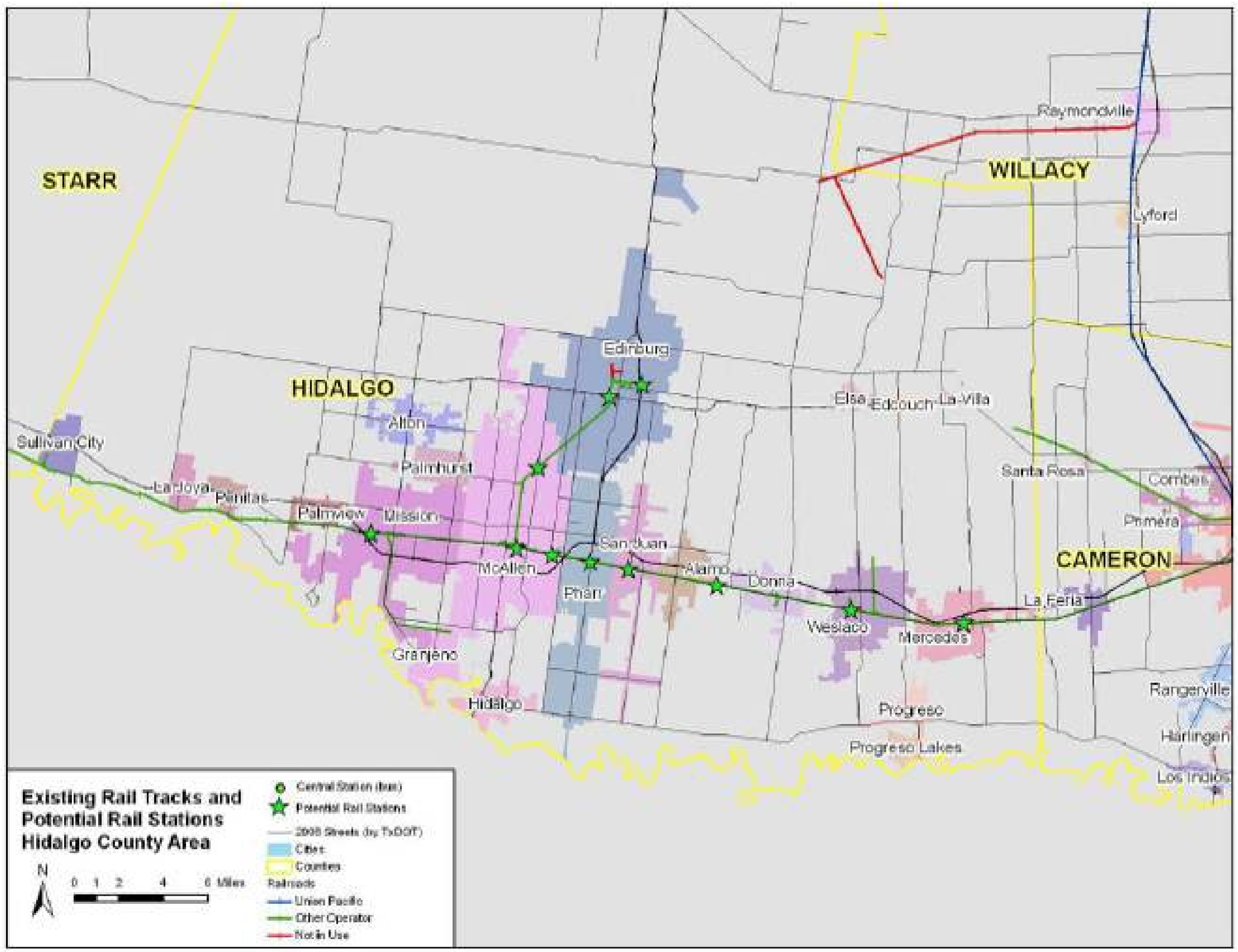
In 2023, the Rio Grande Valley Metropolitan Planning Organization (RGVMPO) and the Lower Rio Grande Valley Development Council (LRGDVC) solicited proposals for the preparation of a Passenger Rail Feasibility Study, which would update the existing Hidalgo County Commuter Rail Feasibility Study to account for changes in demographics, population growth, and economic development in the region, and also assess the feasibility of implementing a comprehensive passenger rail system that encompasses the entire RGVMPO Metropolitan Area Boundary. In addition, the LRGDVC is taking active steps to create a regional transit authority, which would create a taxing entity to fund transportation in the region. Creating a transit authority would open up more funding streams and more opportunities to both optimize and improve existing transit routes and services in the region as well as create new transit services.[137]

135 The Goodman Corporation, Results Summary for the Galveston-Houston Mobility Corridor Alternatives Analysis for the City of Galveston, June 2010.

136 https://www.brownsvilleherald.com/news/valley/valley-rail-transit-a-long-way-away/article_8933a074-3c58-11e3-a1df-001a4bcf6878.html.

137 https://riograndeguardian.com/lrgvdc-resurrects-plans-to-set-up-an-rgv-regional-transit-authority/.

Figure 3-36: Proposed Hidalgo County Commuter Rail System



Source: Hidalgo County Commuter Rail Feasibility Study

Future Tasks

As the above descriptions of potential new services illustrate, additional planning studies and analysis will be needed to fulfill federal planning and environmental requirements for publicly funded passenger rail, incentivize host railroads and other infrastructure owners, and gather detailed information that will help public officials and citizens to make informed decisions about passenger rail. Typical data requirements in the passenger rail implementation process include:

- Detailed ridership forecasts that apply travel demand models to clarify the most promising corridors and outline the revenue implications of shorter trip times made possible by higher speed train services, and also allow station locations and service frequencies to be determined.
- Engineering studies (including train operation models) and environmental analyses to specify intercity corridors capable of accommodating higher speed train services, both along current freight rail corridors or within separate greenfield alignments.
- Cost estimates for capital and operating costs of passenger rail alternatives (different technologies and equipment operating at different speeds on specific corridors) to enable comparisons among alternatives for informed decision-making.
- Risk analyses to analyze passenger rail alternatives and outline risks for project implementation, list escalation factors for cost elements, and test revenue alternatives.

With this information, Texans will be clearly informed about the trade-offs among passenger rail alternatives and be able make smart decisions about passenger rail investments. This kind of detailed study has distinguished states that have received higher amounts of federal funding for passenger and commuter rail projects. These types of studies are required if state or local agencies seek project funding from the federal government for passenger rail improvements.

Texas Department of Transportation

2024 Texas Rail Plan

Chapter 4

Proposed Freight Rail Improvements and Investments

February 2025

Contents

Chapter 4: Introduction **2**

Rail Carrier Investment Needs **3**

Class I Railroad Investment Needs 3

Class II and Class III Railroad Investment Needs 3

Current and Ongoing Freight Rail Projects in Texas **4**

Class I Railroad Projects 4

Class II and Class III Railroad Projects 5

Port Rail Projects 9

Border Crossing Improvement Projects 9

Other Current Projects 9

Proposed Freight Rail Projects **13**

Class I Railroad Projects 13

Class II and Class III Railroad Projects 14

Port Rail Projects 15

Border Crossing Improvement Projects 19

Other Projects to Improve Multimodal Connections 19

Highway-Rail Crossing Projects 19

Chapter 4: Introduction

The purpose of this chapter is to identify recent capital investment trends and to describe future rail improvements and investments that will address the ongoing freight movement utility, reliability, resiliency, and safety needs of Texas. Many of these projects focus on the opportunity for improvements to infrastructure that will enhance the capacity, safety, and efficiency of rail service and operations; climate change adaptation and environmental sustainability; and local economic development opportunities through enhanced rail access for new potential shippers.

Planned and proposed capital projects identified by Texas railroads, shippers, economic development agencies, and other stakeholders during the outreach activities conducted as part of the development of the Texas Rail Plan are listed in this chapter. Projects selected to be prioritized for future public funding opportunities will be further detailed in Chapter 5.

Rail Carrier Investment Needs

Class I Railroad Investment Needs

As private entities, Class I railroad companies in Texas generally must use private financing to cover the cost of equipment acquisition (such as locomotives and railcars) and infrastructure improvements aimed at renewing, upgrading, or expanding the rail network such as rail, ties, bridges, and signal systems. Railroads rely on a regulatory framework that provides sufficient return on investment as a means to accommodate these capital expenditures. Funding for capital programs can vary from year to year due to fluctuations in freight demand, economic trends, and other considerations.

Capital investment in rail infrastructure in Texas by Class I railroads has been ongoing. Work has been performed to modernize and upgrade track structure and bridges to accommodate railcars with a maximum allowable gross weight of 286,000 lbs., and to expand and create new terminal facilities to accommodate new industries.

Class II and Class III Railroad Investment Needs

Class II (regional) and Class III (or short line) railroads generally face a different set of challenges meeting their needs than the Class I railroads, since they do not often possess the capital and technical resources, operating capacity and flexibility, or modern infrastructure of the larger Class I railroads.

Class II and Class III railroads typically rely upon private funding, public funding, or some combination of these sources to cover the capital cost of equipment acquisition and general infrastructure improvements. Some programs administered by the State of Texas and by the federal government are available to Class II and Class III railroads to help fund rail network improvement projects. The potential for this funding and its applicability to and Class II and Class III railroad improvement projects in Texas (including on State-owned lines) are discussed further in Chapter 5.

All Class II and Class III railroad line segments in Texas were originally constructed and operated by Class I railroads. In the 1980s, Class I railroads began to shed unprofitable branch lines following the passage of the federal Staggers Rail Act.

Typically, the largest constraints on Class II and Class III railroads involve infrastructure-related restrictions that prohibit accommodating railcars with a maximum allowable gross weight of 286,000 lbs. (the current industry standard) and operational chokepoints caused by insufficient operating capacity on main lines, in rail yards, and locations where railroads interchange with each other.

Railcars with larger loading capacity provide greater operating efficiency by reducing labor, fuel, and maintenance costs while increasing capacity and synergy for rail operations and rail shippers. Most Class II and Class III railroads have a legacy infrastructure suited to low-density operations and railcars of lighter weight (gross weight of 268,000 lbs. or less). In order to accommodate the 286,000-lb. cars, Class II and III railroads must make upgrades to the track assets (i.e., rail, ties, and ballast) and bridges to handle the additional stress caused by transporting the heavier cars. Class II and Class III railroads that are unable to make the appropriate upgrades may be at a competitive

disadvantage and lose business to transportation competitors, namely to trucks or nearby Class I railroads that are capable of handling the 286,000-lb. cars.

Class II and Class III railroad chokepoints are often attributed to legacy infrastructure tailored to historical railroad practice, which can limit capacity and hamper the efficiency and flexibility of modern operations. Such factors include yard capacity that is insufficient for building longer trains, switching, and staging cars; and sidings that are of inadequate number, length, or location to accommodate the demands of present-day train operations where meet-pass events may be required when multiple trains are operating on the same line.

Some Class II and Class III railroads are further constrained by delays that stem from interchanging railcars with another carrier or in the use of trackage rights to access an isolated segment of their network. Further complicating interchanges between carriers are "paper barriers" or instances where for regulatory or other contractual reasons one railroad is unable to interchange with another railroad to which it physically connects or is limited in the volume of traffic it can interchange. Among other things, operational chokepoints and terminal congestion can harm quality of life in communities where stopped trains result in blocked crossings and cause delays to motorists and pedestrians.

Current and Ongoing Freight Rail Projects in Texas

This section describes current (or recently completed) and ongoing Class I railroad projects in Texas.

Class I Railroad Projects

BNSF Railway (BNSF)

In January 2024, BNSF Railway (BNSF) announced it would invest $3.92 billion in their 2024 capital investment plan[1]. BNSF's capital investments include maintaining their core network and related assets, purchasing equipment, and expansion and efficiency projects. In 2023, BNSF's capital investment plan totaled $3.96 billion and included funding to complete a second main track expansion in Fort Worth.[2] No specific projects in Texas were identified in the 2024 capital investment plan.

Union Pacific Railroad (UP)

In 2023, Union Pacific Railroad's (UP's) capital investments in Texas reached $720 million, while their total investment from 2019 to 2023 were over $3.6 billion. Projects funded by these investments included expansions at their intermodal facilities in San Antonio, Houston, and the Dallas/Fort Worth Metroplex, improvements to operations at automotive facilities in Dallas, Mesquite, and Laredo, a new rail car servicing facility in Spofford, and 14-miles of double-track in and out of the Houston Metro area.[3]

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1 BNSF Railway, BNSF announces plan for 2024 capital investments, retrieved from: https://www.bnsf.com/news-media/news-releases/newsrelease.page?relId=bnsf-announces-plan-for-2024-capital-investments.

2 BNSF Railway, BNSF announces plan for 2023 capital investments, retrieved from: https://www.bnsf.com/news-media/news-releases/newsrelease.page?relId=bnsf-announces-plan-for-2023-capital-investments.

3 Union Pacific, Union Pacific in Texas, retrieved from: https://www.up.com/cs/groups/public/@uprr/@corprel/documents/up_pdf_nativedocs/pdf_texas_usguide.pdf.

UP's 2024 Capital Plan, which was announced in February 2024, is budgeted at $3.4 billion, with $1.9 billion allocated to infrastructure replacement. UP did not identify any projects in Texas in their 2024 Capital Plan.[4]

Canadian Pacific Kansas City (CPKC)

In January 2024, Canadian Pacific Kansas City (CPKC) announced in their *2023 Annual Report* that they will invest close to $2.75 billion in their capital program, with approximately 60% - 70% of that allocated for track and roadway projects.[5] No specific projects in Texas were identified in the *Annual Report*.

CPKC is set to open a second international bridge over the Rio Grande River from Laredo, Texas to Nuevo Laredo, Tamaulipas in early 2025. The new international bridge is being constructed approximately 35-feet from the existing international bridge and when finished, would allow trains to operate in both directions concurrently. Also included in the project is a renovation of the existing U.S. Department of Homeland Security/Customs and Border Protection building in Laredo and a reconstruction of a CPKC Operations Security Building in Nuevo Laredo.[6]

CPKC opened the 30-acre Dallas Automotive Compound at the existing Dallas Wylie Terminal in Wylie, Texas in the summer of 2024. The new automotive facility now allows CPKC to import vehicles to Texas from the 25 automotive production facilities in the U.S., Canada, and Mexico that CPKC has rail access to.[7]

Class II and Class III Railroad Projects

This section describes current (or recently completed) and ongoing Class II and Class III railroad projects in Texas.

Austin Western Railroad (AWRR)

The Austin Western Railroad (AWRR) recently completed a project to install distributed power (DP) capabilities on its fleet of EMD SD60 locomotives to allow the railroad to more easily operate heavier trains across its territory.

AWRR also recently completed a tie and surfacing project on the East and West subdivisions. This included replacing 4,500 ties on the West Subdivision, replacing 1,800 ties on the East Subdivision, as well as ballast, surfacing, and tamping.

Blacklands Railroad, Inc.

Henderson Overton Branch Rail Line Rehab and Train Siding Improvement

The Blacklands Railroad was awarded up to $8,480,323 in FY 2020 CRISI grant funding for the Henderson Overton Branch Rail Line Rehab and Train Siding Improvement Project.

The project purpose was to improve the safety and reliability of track owned by Rusk County Rural Rail District in Rusk County, Texas. The project installed new railroad ties to refurbish approximately 13.7 miles of rail between Overton

4 Union Pacific, News Release – Capital Investment, retrieved from: https://www.up.com/media/releases/investing-safety-growth-nr-240221.htm.

5 CPKC, CPKC 2023 Annual Report, Retrieved from: https://s21.q4cdn.com/736796105/files/doc_financials/2023/ar/CPKC_AnnualReport_2023.pdf.

6 CPKC, Kansas City Southern Breaks Ground on Second Span of New International Bridge in Laredo, Texas and Nuevo Laredo, Tamaulipas, Retrieved from: https://www.cpkcr.com/en/media/kcs-media/KCS-Breaks-Ground-on-Second-Span-of-New-International-Bridge.

7 CPKC, CPKC Advantage, Investor Presentation: August 2023, Retrieved from: https://s21.q4cdn.com/736796105/files/doc_presentations/2023/Sep/18/cpkc-investor-presentation_08-2023_final2.pdf.

and Henderson; constructed three interchange sidings with UP at Overton; constructed one unit train siding at Henderson; and purchased equipment including locomotives, crew cars, and high-railers. Rehabilitation of the line allowed for an increase of freight rail speed from 10 to 25 miles per hour, and construction of the sidings helped to increase operational efficiency and lower operating costs.

Dallas, Garland & Northeastern Railroad (DGNO)

North Texas Rail Safety and Efficiency Project

The Dallas, Garland & Northeastern Railroad (DGNO) was awarded up to $16,754,834 in FY 2023-2024 CRISI grant funding for the North Texas Rail Safety and Efficiency Project.

The proposed project includes the replacement and rehabilitation of rail, ballast, and surfacing and the installation of rail lubricators on the DGNO between Sherman and McKinney, Texas. The project will raise the track classification and allow DGNO to increase train speeds on this segment.

Kiamichi Railroad Company

Kiamichi Tri-State Freight Rail Improvement Project Phase 2

The Kiamichi Railroad Company (KRR) was awarded up to $56,619,066 in FY 2023-2024 CRISI grant funding for the Kiamichi Tri-State Freight Rail Improvement Project Phase 2 Project.

The proposed project includes final design and construction and will upgrade track on the Ashdown, Hope, and Paris subdivisions of the Kiamichi Railroad in Oklahoma, Arkansas, and Texas. The project is going to replace approximately 76 miles of jointed rail with continuous welded rail and resurface and install ballast on these segments, install ten rail lubricators to reduce rail wear from contact forces, resurface 114 crossings, and install trespassing signs and barriers at ten crossings. The project will improve the safety, efficiency, and sustainability of freight movement along these rail corridors and continue to foster economic development and business retention in rural areas across Oklahoma, Arkansas, and Texas.

Oklahoma Department of Transportation

Kiamichi Tri-State Rail Project

The Oklahoma Department of Transportation was awarded up to $10,006,289 in FY 2020 CRISI grant funding for the Kiamichi Tri-State Rail Project.

The project purpose was to improve the Kiamichi Railroad in southeast Oklahoma, northeast Texas, and southeast Arkansas. Most of the project work was completed in Oklahoma in Tribal Lands of the Choctaw Nation. The project replaced approximately 23 miles of rail and 15 turnouts, reinforced 31 bridges, resurfaced 17 curves, restored 13 miles of track, and upgraded nearly three dozen road crossings across four subdivisions. The project was part of a multiyear effort to increase speeds to 25 miles per hour and allow 286,000-lb. rail carloads across the network.

Rio Valley Switching Company (RVSC)

Rio Valley Rail Capacity Improvement Project

The Rio Valley Switching Company (RVSC) was awarded up to $3,500,000 in FY 2022 CRISI funding for the Rio Valley Rail Capacity Improvement Project.

The project purpose was to complete final design and construction activities for track-related improvements and upgrades to multiple bridges along an estimated 50-mile-long corridor on RVSC's rail network. In sections where there is Excepted track standard, the improvements will be built to FRA Class 1 track safety standards; in other sections, the project will maintain current FRA Class 1 track standards. The project will improve system and service performance and safety, as it will improve rail operations and safety to accommodate project growth in the Rio Valley region, as well as continuing interchange services with UP.

Rio Valley Rail Capacity Improvement Project – Phase 2

RVSC was awarded up to $5,250,000 in FY 2023-2024 CRISI funding for the Rio Valley Rail Capacity Improvement Project – Phase 2.

The proposed project includes final design and construction and will rehabilitate the Harlingen and Hidalgo yards, add a passing siding in Alamo, and expand the capacity of rail in the Hidalgo Trade Zone on the UP rail lines leased by the RVSC. The project will increase crew time savings, increase efficiency of equipment usage, and reduce the risk of derailments.

Texas, Gonzales & Northern Railway Company (TXGN)

Harwood Interchange Improvement Project

The Texas, Gonzales & Northern Railway Company (TXGN) was awarded up to $2,223,768 in FY 2020 and $223,768 in FY 2019 CRISI funding for the Harwood Interchange Improvement Project.

The project purpose was to improve the TXGN's interchange point with UP at Harwood, Texas. The project improved approximately 9,000 feet of track; constructed a new siding parallel to TXGN's main line running south from the interchange, along with associated switch improvements; improved road access to the interchange area; and replaced two small wood trestle railroad bridges with concrete culverts. Extending the siding allowed TXGN to accommodate longer trains, and the bridge upgrades now allow TXGN to handle rail carloads up to a maximum gross weight of 286,000-lb.

Texas Triangle Rail Revitalization Project

TXGN was awarded up to $4,634,546 in FY 2023-2024 CRISI for the Texas Triangle Rail Revitalization Project.

The proposed project includes final design and construction to replace seven open deck timber pile bridges on the TXGN in central Texas. The project will address maximum load limitations and vulnerability to wildfire.

Texas & Eastern Railroad (TSR)

East Texas Revival Project

The Texas & Eastern Railroad (TSR) was awarded up to $13,354,839 in FY 2023-2024 CRISI funding for the East Texas Revival Project.

The proposed project includes the rehabilitation of deteriorating rail infrastructure along the approximately 28.3 miles of TSR track that runs from Palestine to Rusk, Texas. The project will replace and upgrade ties, rail, switches, ballast, surfacing, and 17 crossings.

Texas North Western Railway (TXNW)

The Etter Interchange Improvement

The Texas North Western Railway (TXNW) was awarded up to $4,086,700 in FY 2019 CRISI funding for the Etter Interchange Improvement Project.

The project purpose was to combine two adjacent, undersized four-track yards within the Fisher Yard Complex in Moore County into a single yard capable of handling longer train consists between TXNW and BNSF. The project included track capable of handling 286,000-lb rail cars and enabled efficient interchange between the two railroads.

The Sunray Agricultural Supply Chain Efficiency Project

(TXNW) was awarded up to $7,342,032 in FY 2022 CRISI funding for the Sunray Agricultural Supply Chain Efficiency Project.

The proposed project includes project development, final design, and construction activities for track-related improvements and replacement of certain bridges. The project aligned with the FRA CRISI program selection criteria by enhancing safety as the project helped to modernize the TXNW, resulting in reduced risk of derailments, accommodate the 286,000-lb. unit grain trains, and reducing emissions by allowing for the utilization of larger, more modern locomotives – including those of BNSF– to access a grain elevator. Also, the project will help TXNW sustain interchange with BNSF.

Texas Rock Crusher Railway (TXR)

The Camp Bowie Access Project

The Texas Rock Crusher Railway (TXR) was awarded up to $3,511,714 in FY 2023-2024 CRISI funding for the Camp Bowie Access Project.

The proposed project includes project development, final design and construction and will rehabilitate approximately 2.5 miles of track and wooden trestle bridge that provides access to nearly all of TXR's customers. The project will reduce slow orders, bridge defects, and reduce the vulnerability to wildfire.

Port Rail Projects

Port Houston

Barbours Cut Container Terminal

Port Houston is investing $650 million in capital improvements at Barbours Cut Terminal over the years 2023 – 2027.[8] The terminal features 300 acres of container yard space, six berths, 29 entry truck gates, and more than 8,000 feet of working track connecting to off-site warehouses. Some of these improvements include investing in additional container yard space, concrete rehabilitation and more STS cranes to add to our terminal fleet.

The Port Houston is the largest Gulf Coast container port, handling 73% of U.S. Gulf Coast container traffic and is an essential economic engine for the Houston region, the state of Texas and the U.S.

In 2023, both BNSF and UP expanded their intermodal service offerings to and from Barbours Cut.[9] BNSF now operates container intermodal trains between Barbours Cut, Fort Worth (Alliance), Texas, and Denver, Colorado. UP provides intermodal service between Barbour's Cut and Denver, Salt Lake City, Oakland, Los Angeles, El Paso, and Dallas/Fort Worth.

Border Crossing Improvement Projects

In 2008, the international rail bridge between Presidio, Texas and Ojinaga, Mexico was destroyed by fire. The rail bridge forms a connection between the Mexican rail carrier Ferromex and its U.S. subsidiary Texas Pacifico.

In 2018, construction work began to rebuild the bridge so that freight rail service may resume. As of 2024, the new bridge has been completed but has not yet reopened to rail traffic. The border crossing is scheduled to reopen in the winter of 2025 pending the installation of an X-ray machine to support non-invasive scanning of trains by U.S. Customs and Border Patrol personnel.

Other Current Projects

Cameron County Regional Mobility Authority

Harlingen Rail Improvements Project

The Cameron County Regional Mobility Authority was awarded up to $5,570,566 in FY 2021 CRISI funding for the Harlingen Rail Improvements Project.

The project will relocate and realign approximately 1.7 miles of track and construct one new crossing in order to eliminate seven existing highway-rail grade crossings in Harlingen, Texas. The new track connection enables the UP Harlingen Subdivision track to connect to the UP Brownsville Subdivision, as well as straighten out two curves. The extension of this track between Jefferson Avenue and Adams Avenue will allow for the closure of the older SP switchyard east of Commerce Street between Ona Street north to Orange Heights Street and the removal of the rail

8 Port Houston, Barbours Cut Container Terminal. Retrieved from: https://porthouston.com/infrastructure/facilities-capabilities/barbours-cut-container-terminal/.

9 Port Houston, New Intermodal Services at Barbours Cut Container Terminal, June 26, 2023. Retrieved from: https://porthouston.com/new-intermodal-services-at-barbours-cut-container-terminal/.

line between Commerce Street and Adams Avenue. This new connection will result in the retirement of approximately 1.7 miles of the Harlingen Subdivision between U.S. 77 Sunshine Strip and Jefferson Avenue and will allow UP to close seven highway-rail grade crossings.

City of Amarillo

NE 24th Avenue Railroad Overpass

The City of Amarillo, Texas was awarded up to $8,425,000 in FY 2022 RCE funding to complete the NE 24th Avenue Railroad Overpass Project.

The proposed project will fund final design and construction to eliminate an existing highway-rail grade crossing by building an overpass for an existing five-lane arterial road over rail line. The project proposes to build a modern, multi-modal bridge in the Eastridge Neighborhood in East Amarillo, resulting in the elimination of a highway-rail grade crossing for the BNSF rail line at this location. This grade separation will provide a safe connection for all modes of transportation for residents of Eastridge and surrounding neighborhoods to the rest of Amarillo, and it adds capacity to NE 24th Avenue – which serves as an expanding economic anchor in the area.

City of Dayton

Dayton Rail Crossings Improvement Project

The City of Dayton, Texas was awarded up to $700,000 in FY 2019 CRISI funding to complete the Dayton Rail Crossings Improvement Project.

The proposed project will support preliminary engineering and environmental analysis and documentation necessary to improve four highway-rail grade crossings UP track within the city. This project will evaluate the potential for a grade separation where 16 UP trains operate daily.

City of Houston

West Belt Improvement Project (Phase 1)

The City of Houston, Texas was awarded up to $36,916,200 in FY 2022 RCE funding to complete the West Belt Improvement Project (Phase 1).

The proposed project will support project development activities, final design, and construction to advance the City of Houston's Phase 1 effort to create a future 14,600 ft sealed corridor along the Houston Belt & Terminal Railroad's (HB&T) rail line. Phase 1 includes a 9,000 ft sealed corridor with the construction of four underpasses and the closure of four highway-rail grade crossings to eliminate seven existing highway-rail grade crossings. HB&T provides trackage rights to BNSF, CPKC, and UP; the rail line connects directly to both BNSF and UP. The project will improve safety and mobility of freight rail operators, vehicular/truck traffic, non-motorized users.

City of Laredo

Downtown Laredo Rail Corridor Safety Planning Project

The City of Laredo, Texas was awarded up to $4,000,000 in FY 2022 CRISI funding to complete the Downtown Laredo Rail Corridor Safety Planning Project.

The proposed project involves project development activities for improvements to numerous highway-rail grade crossings on the Laredo Rail Corridor in Laredo, Texas. The project, which is being done in partnership with CPKC, aligns with the FRA CRISI program selection criteria by enhancing safety as it will help advance efforts to close certain highway-rail grade crossings, build grade-separated structures, and install gate and safety improvements at certain highway-rail grade crossings.

Also, this project, if built as part of a future phase, will improve safety on the Laredo Corridor, improve efficiency and mobility on a vital cross border trade route, and support expanded capacity on CPKC's rail network. The project will improve supply chain efficiency on a critical cross-border trade corridor and supports the key administration goal of safety.

City of San Antonio

Rittiman Road Grade Separation Project

The City of San Antonio, Texas, in partnership with TxDOT, was awarded up to $4,886,512 in FY 2022 RCE funding to complete the Rittiman Road Grade Separation Project.

The proposed project will support project development and final design to eliminate an highway-rail grade crossing where Rittiman Road and UP's rail line intersect and to build a grade-separated road overpass. The project will design solutions to eliminate issues with vehicular traffic encountering trains blocking the crossing multiple times per day (projected to be blocked 40 percent of peak period without improvements by 2045) due to high train volume and rail operations.

Greater Southeast Management District

Griggs Road and Mykawa Road Rail Safety Improvements Project (Opportunity Zone)

The Greater Southeast Management District was awarded up to $666,000 in FY 2019 CRISI funding to complete the Griggs Road and Mykawa Road Rail Safety Improvements Project.

The proposed project will support alternatives analysis, preliminary engineering and federal environmental analysis, and documentation to grade-separate four current at-grade highway-rail crossings at the intersection of Griggs Road, Mykawa Road, and Long Drive with UP and BNSF in Houston.

North Central Texas Council of Governments (NCTCOG)

AllianceTexas Inland Port Project

The North Central Texas Council of Governments (NCTCOG) was awarded $80,000,000 in FY 2025-2026 INFRA funding for the AllianceTexas Inland Port Project.

The proposed project will construct approximately 15 miles of SH 170/intermodal Parkway Smart Connected Corridor to connect the BNSF intermodal facility with warehousing and distribution facilities. The project includes freight traffic optimization at thirteen locations, shared use paths, and port lanes.

Texas A&M Engineering Experiment Station

Improving the Safety at Highway Railroad Grade Crossings Located in Rural Areas Using UAV-CRP Data Analysis

The Texas A&M Engineering Experiment Station was awarded up to $241,546 in FY 2020 CRISI funding to complete the Improving the Safety at Highway Railroad Grade Crossings Located in Rural Areas Using UAV-CRP Data Analysis Project.

The proposed project would implement drone technology and three-dimensional mapping to study passive highway-rail grade crossings in rural areas to determine if unsafe conditions exist for vehicle traffic.

Texas Department of Transportation

Grade Crossing Improvements at FM 1660

TxDOT was awarded up to $1,451,250 in FY 2020 CRISI funding to complete the Grade Crossings Improvements FM 1660 S Project.

The proposed project includes a median to prevent or limit the opportunity for drivers to circumnavigate the railroad gates and sidewalks to safely channel pedestrians toward a nearby elementary school. The project would also improve the crossing profile to reduce the opportunity for low-ground clearance vehicles to become immobilized. Lastly, the project would enhance the railroad pre-emption to safely clear motorists off the crossing intersection prior to trains approaching.

US 90 Grade Separation Project

TxDOT was awarded up to $19,550,000 in FY 2022 RCE funding to complete the US 90 Grade Separation Project.

The proposed project will support construction to remove two highway-rail grade rail crossings. The project will close the existing highway-rail grade crossing along Waco Street and construct a grade-separated overpass to eliminate the US 90 highway-rail grade crossing over the UP tracks. The FRA previously funded project development activities for these crossings under an FY 2019 CRISI grant.

Haslet-Fort Worth-Saginaw Corridor Bonds Ranch Road Grade Separation Project

TxDOT, in partnership with BNSF and the City of Fort Worth, was awarded up to $17,187,552 in FY 2022 RCE funding to complete the Haslet-Fort Worth-Saginaw Corridor Bonds Ranch Road Grade Separation Project.

The proposed project will support final design and construction for a four-lane grade-separated road with new multimodal shared-use bicycle and pedestrian pathways. This project will improve safety where Bonds Ranch Road crosses the BNSF railway corridor and improve transportation modal alternatives in the area.

Tesla, Inc.

In June 2024, Tesla announced the lease of a 180,000-square foot industrial space at the RCR Taylor Logistics Park in Taylor, Texas. The RCR Taylor Logistics Park is located 30 miles from the Giga Texas headquarters, where Tesla manufacturers the Model Y and Cybertruck. The RCR Taylor offers access to both UP and BNSF.[10]

Proposed Freight Rail Projects

Class I Railroad Projects

This section describes planned or proposed Class I railroad projects in Texas.

BNSF Railway (BNSF)

Heartland Flyer Corridor: Safety, Efficiency, and Resiliency Project

TxDOT, in partnership with the Oklahoma Department of Transportation (ODOT) and BNSF, submitted an FY 2023-2024 CRISI grant application for the Heartland Flyer Corridor: Safety, Efficiency, and Resiliency Project.

The proposed project contains three elements: Occupied Crossing Mitigation projects in Davis, OK and Valley View, TX and the BNSF Resiliency project. All three project elements are on BNSF-owned tracks which host Amtrak's *Heartland Flyer*, the only intercity passenger rail service in Oklahoma operating between Oklahoma City, Oklahoma, and Fort Worth, Texas. There are approximately 24 trains per day traveling along this stretch of rail, including two daily Amtrak *Heartland Flyer* passenger trains. The portion of the Project located in Oklahoma is on the BNSF Red Rock Subdivision and the portion of the Project located in Texas is on the Fort Worth Subdivision.

The Occupied Crossing Mitigation project in Davis will improve safety along the BNSF railroad line in Oklahoma. The project element improvements consist of removing siding track from Benton Avenue to Main Street (US-77/SH-7) and relocating siding and industry operations south of Haliburton Road/CR-3310 by providing about two miles of new siding to reduce loading trains that occupy multiple crossings in the city. This includes closing the highway-rail grade crossings at Atlanta Avenue and Hanover Road. The element will also include safety improvements at Benton Avenue, Main Street, and Haliburton Road/CR-3310 to support safe and reliable movements of goods, people, and services including additional lighting and improved pedestrian crossing gates and fencing.

The Occupied Crossing Mitigation in Valley View will shift the existing siding along the BNSF Fort Worth Subdivision to minimize delays at the Farm-to-Market (FM) 922 active at-grade highway-rail crossing (DOT# 020589J) in Valley View, Texas. The project element will eliminate the existing siding track at the crossing, reducing the number of tracks crossing the roadway to one mainline track. Over one week in May 2024, the crossing experienced 22 blockages with the longest lasting over two-hours. FM 922 is a rural two-lane roadway that serves 4,150 vehicles per day, approximately 13% which are trucks. When the crossing is occupied from standing trains in the siding track, vehicles

10 Austin Business Journal, Exclusive: Tesla lease space in RCR Taylor Logistics Park, retrieved from: https://www.bizjournals.com/austin/news/2024/07/24/tesla-rcr-taylor-logistics-park-partners-austin.html.

must take a lengthy detour route. The highway-rail crossing's proximity to the I-35 interchange limits grade separation potential. Therefore, the project proposes shifting the existing siding 2,800 feet south of FM 922 to no longer cross any existing roadways. The length of the siding will expand from 8,204 feet to 11,900 feet and accommodate longer freight trains plus meet current track standards. This element will improve safety and emergency response access, reduce congestion, advance further corridor goals, and increase connectivity within the greater region.

The Resiliency element will complete crucial repairs to sidings and tracks along the line between Oklahoma City, Oklahoma and Fort Worth, Texas. The project element includes installing new riprap/ballast, rail replacement, bridge deck replacement, and improving track conditions along the line at 13 locations.

Union Pacific Railroad (UP)

The following projects were identified by UP as future project opportunities within Texas.

- Glidden Subdivision – Double-track various sections of the Glidden Subdivision where only single track exists. Portions of this subdivision are shared with Amtrak, BNSF, and CPKC. The project would reduce the time strains spend in crossings and potentially improve train velocity.
- East Belt and Mykawa Subdivision – Double-track East Belt and Mykawa subdivisions to improve train velocity and reduce the amount of time trains spend occupying highway grade-crossings.

Canadian Pacific Kansas City (CPKC)

N/A

Class II and Class III Railroad Projects

This section describes planned or proposed Class II and Class III railroad projects in Texas.

Austin Western Railroad (AWRR)

The Austin Western Railroad (AWRR) identified several future project needs. Among the most pressing of these needs is the upgrade of all rail bridges on AWRR's East Subdivision to be able to accommodate 286,000-lb. railcars.

Further, AWRR's customer base has large potential for future volume growth. AWRR is currently looking at industrial property in McNeil, Texas that may potentially be able to serve as a transload site.

Northeast Texas Connectors LLC (NETC)

The Northeast Texas Connectors LLC (NETC) railway has a number of potential future projects at this time. The NETEX Board has tasked Freedom Rail Group with rebuilding the railroad to FRA Class 2 track standards. NETC is currently collaborating with TxDOT and the NCTCOG to identify and leverage potential funding opportunities to advance this work.

In addition to track maintenance work, NETC also has access to 22 miles of abandoned railroad right-of-way that leads to CPKC's Wiley Yard, near Dallas. NETC has identified the opportunity to potentially relay track along this 22-mile

segment in order to move their CPKC interchange from Sulphur Springs to Wiley. This change would yield several important efficiencies for both NETC and CPKC.

Texas City Terminal Railway (TCT)

The Texas City Terminal Railway (TCT) applied for an FY 2023-2024 CRISI grant for the Texas City Terminal Railway Company Multi-Modal Expansion Project. The project's purpose is to alleviate existing railcar capacity limitations within the rail transportation system. Further, the project would assist TCT in meeting its customers' needs and will promote future growth opportunities for the surrounding area and region.

TCT also identified a number of additional future project opportunities:

- Bayou Bridge - $400-$500K in annual maintenance. Estimated to cost $30 million to rebuild as a concrete structure.
- Railcar Scale – Estimated to cost $1 million. A second scale could be needed based on development. This would be an additional $1 million.
- Track Rehab into Oxbow (Petroleum Coke Terminal) – Loop track out of service for 25 years. Estimated to cost $1.5-2.0 million.
- Expand 4 tracks on the north side of the yard - $12-$15 million.
- Extend and stop short of "Transload track" - $7-$8 million.

Texas Pacifico Transportation (TXPF)

Texas Pacifico Transportation (TXPF) identified several potential future project opportunities, including:

- Relay 48 miles of 70 lb. per yard rail to 115 lb. per yard rail between MP 897 and MP 945.3 to improve track class from FRA Class 1 to FRA Class 3.
- Perform track improvements between MP 956.7 to 1026.7 to improve track from FRA Class 1 to FRA Class 2.
- Construct two new sidings between MP 1027 and MP 797.
- Rehabilitate the Presidio rail yard.

TXPF indicated that these projects would be advanced only after the official reopening of the Presidio border crossing.

Port Rail Projects

This section describes planned or proposed port rail projects in Texas.

Port of Beaumont – Main Street Terminal 2

The project will demolish and reconstruction a new dock facility and transit shed at the Port of Beaumont, specifically Main Street Terminal 2, which would allow the terminal to handle large shipments of break bulk. The current terminal, constructed in the 1950's, can no longer accommodate modern vessels and has a deck load capacity of 500 psf, as opposed to the 1,200 psf capacity of modern docks at the port. Additionally, the adjacent storage sheds are difficult to maneuver and lack sufficient storage space. The project would also upgrade the surrounding rail and enlarge the apron area, increasing the efficiency of the terminal.

The proposed project cost is $150 million.

Port of Corpus Christi Authority – Bulk Materials Terminal Facility Improvements

The project includes the addition of new export/import facility with related berthing structure, ship loading equipment, rail tracks, and associated landside and waterside improvements.

The estimated project cost is $150.4 million.

Port of Freeport – Area 6 Stabilization and Rail Spur

The project would add concrete pavement to an existing 7-acre storage yard on Velasco Terminal. Currently, this area is stabilized with limestone aggregate which allows for limited cargo storage. In addition, this project would also remove and relocate the existing rail spur to remove the current rail/track intersections to allow for more efficient movements within the terminal.

The estimated project cost is $10 million.

Port of Harlingen – Railyard Development

The Port of Harlingen plans to develop a new railyard on recently acquired land to expand its rail capabilities. Currently, the port only has 3,700 LF of single lead track and rail accounts for less than 1% of tonnage moving through the Port. This project would establish a storage yard and additional lead tracks into the Port's facilities. The proposed railyard will be able to handle four unit-car trains per week.

The estimated cost is $30 million.

Port of Port Arthur – Terminal Rail Expansion

This project would enhance port connectivity and rail accessibility at the Port of Port Arthur by constructing approximately 15,000 feet of railroad track parallel to the existing alignment. The addition of these tracks will change the way rail is loaded and unloaded at the port. The project would allow trains to be bulk handled directly onto trucks or barge. The direct handling keeps the trains from being pulled apart and put back together.

The proposed project cost is $7.93 million.

Port of Port Arthur – Truck and Trailer Cargo Queuing Area with Rail

The project would expand and stabilize the area at the end of Lakeshore Drive with concrete pavement and extend the existing rail track. This would provide additional area for truck drivers to safely drop and hook trailers, and for the ability to transloading between truck and rail.

The estimated project cost is $3 million.

Port of Victoria – Texas Logistics Center Rail Expansion

The Port of Victoria is proposing to design and construct a significant rail expansion and create a multi-modal facility capable of handling 286,000-lb. rail cars. This facility would provide the needed local rail capacity as well as regional rail network capacity through additional track that work over 1,000 rail cars.

The estimated project cost is $26.4 million.

Port Connectivity Projects

The following port connectivity projects were identified in the *2024-2025 Texas Port Mission Plan*.[11] The state can invest directly in port connectivity enhancements and pursue funding from other sources. These investments will sustain expected increases in shipping and support employment and improved quality of life in Texas' seaport cities. It should be noted that some of the railroad projects do not have cost estimate data due to lack of consistent data.

Calhoun Port Authority:

- Add railroad loop to serve south port operations area
  - Cost: TBD

Cedar Bayou Navigation District:

- Grade separate railroad crossing at intersection of FM 565/FM 1405
  - Cost: $5.8M

Port of Bay City:

- Add railroad to existing port facilities
  - Cost: TBD

Port of Beaumont:

- Reconstruct railroad lift bridge over Neches River (RR owned)
  - Cost: TBD

Port of Corpus Christi:

- Improve railroad crossing signage and warning devices on FM 1069
  - Cost: $0.3M
- Improve railroad crossing signage and warning devices on SH 361
  - Cost: $0.3M

11 https://ftp.dot.state.tx.us/pub/txdot-info/mrt/mission-plan-2024-2025.pdf.

Port of Freeport:

- Add railroad along SH 36 to reduce freight on roads and avoid Houston railroad congestion.
  - Cost: TBD
- Install at-grade highway-rail crossing gates and warning devices
  - Cost: $0.3M

Port of Galveston:

- Improve Harborside Drive to I-45 NB connection; include overpass over railroad
  - Cost: $12.8M
- Improve highway-rail grade crossings on Harborside Drive at 37th Street; potential grade separation
  - Cost: $7.3M

Port of Houston:

- Install lights, crossing arms, safety mechanisms on at-grade highway-rail crossings
  - Cost: $0.3M

Port of Orange:

- Construct switch yard near port entrance and improve rail along Alabama Street
  - Cost: TBD
  - Straighten out railroad near West Orange/Walmart to allow six axle train cars
  - Cost: TBD

Port of Port Arthur:

- Grade separate railroad Crossing at SH 215
  - Cost: $5.7M
- Add medians to prevent weaving through RR gates at SH 215 crossing
  - Cost: $0.1M
- Improve railroad bridge with low vertical clearance along US 69
  - Cost: $2.1M
- Improve railroad bridge with low vertical clearance along SH 87
  - Cost: $1.3M

Port of Victoria:

- Improve railroad crossing/safety improvements in Bloomington on SH 185
  - Cost: TBD

Port of West Calhoun:

- Develop new railroad to port
  - Cost: TBD

Sabine Pass Port Authority:

- Add railroad line from Port Arthur to Sabine Pass
  - Cost: TBD

Border Crossing Improvement Projects

Freight rail crossings at the U.S.-Mexico border are also a focus for future infrastructure improvements. Existing border rail crossings should continue to be improved (via grade separations, capacity enhancements, safety and security improvements, and so on) and potential new rail crossings at the border will be studied and possibly implemented.

Other Projects to Improve Multimodal Connections

The rail system in Texas is a component of a comprehensive multimodal transportation network, which includes linkages to highway, water (ocean and river ports), and air modes. The opportunity for enhanced multimodal transportation opportunities could be met through investments targeted to promote interconnectivity, capacity, and environmental sustainability. Such investments could include construction or rehabilitation of existing rail connections between principal railroad lines and river port properties, as well as additional sidings, spurs, or yard tracks for switching, staging, and storing railcars at or near port, transload facilities, or new intermodal facilities.

Highway-Rail Crossing Projects

TxDOT spends approximately $3.5 million per year through the State's Railroad Grade Crossing and Replanking Program on highway-rail crossing improvements for the replacement of rough railroad crossing surfaces on the state highway system. The state also manages its Railroad Signal Maintenance Program, which provides approximately $1.1 million annually for railroad signal maintenance payments to railroads. The Texas Transportation Commission also approves an annual amount of Section 130 funds as part of their approval of the Unified Transportation Program (UTP); Texas received approximately $21.15 million in FY 2024 annual Section 130 funding. [12] Additional funding for related safety improvements typically comes from a variety of federal sources. Refer to Chapter 2 for further details about these federal and state funding sources, as well as a rail crossing inventory and safety data for Texas.

12 U.S. Department of Transportation – Federal Highway Administration; Distribution of Railway-Highway Crossing Program Funds Apportioned for Fiscal Year 2024l; https://www.fhwa.dot.gov/bipartisan-infrastructure-law/comptables/FY2024ComputationalTables.pdf (September 9, 2024).

Texas Department of Transportation

2024 Texas Rail Plan

Chapter 5

Texas Rail Service and Investment Program

February 2025

Contents

Chapter 5: Introduction 3

Texas Rail Vision 4

TxDOT Rail Vision 4

Rail Program Goals and Objectives 4

Passenger Rail Planning 5

Texas-Mexico Border Transportation Master Plan 6

New Mexico Freight Projects 7

National Strategic Rail Corridor Network 7

Rail Agencies 8

Rail Agencies and Authorities 8

Rural Rail Transportation Districts 9

Program Effects 13

Short-Range Rail Freight Program Effects 14

Long-Range Rail Freight Program Effects 14

Passenger and Commuter Rail Program Effects 15

Rail Project Impact and Financing Analysis 15

Passenger Rail 15

Freight Rail 19

Rail Program Impacts Summary 21

Rail Studies and Reports 21

Intercity Passenger Rail Studies 22

Commuter Rail Studies 22

Regional Freight Mobility Studies 23

Safety Enhancements at Crossings Studies 24

Texas' Potential Short- and Long-Range Rail Projects 25

Short-Range Rail Freight Improvement Projects 28

Long-Range Freight Railroad Improvement Projects 47

Short-Range Program of Rail Passenger Projects 75

Long-Range Program of Passenger Rail Projects 85

Figures

Figure 5-1: The Strategic Rail Corridor Network in Texas 8
Figure 5-2: Map of Rural Rail Transportation Districts Formed in Texas 11
Figure 5-3: Existing Amtrak Routes in Texas 18
Figure 5-4: Location of Short-Range Freight and Passenger Rail Projects 26
Figure 5-5: Location of Long-Range Freight and Passenger Rail Projects 27

Tables

Table 5-1: Number of Rural Rail Transportation Districts in Texas 9
Table 5-2: TxDOT Short-Range Program of Rail Freight Projects (2024-2027) 29
Table 5-3: TxDOT Long-Range Program of Rail Freight Projects (2028-2049) 48
Table 5-4:TxDOT Short-Range Program of Rail Passenger Projects in Texas (2024-2028) 76
Table 5-5: TxDOT Long-Range Program of Rail Passenger Projects in Texas (2028-2044 86

Chapter 5: Introduction

Chapter 5 addresses the specific projects, programs, policies, laws, and funding necessary to achieve the state's rail vision and describes the related financial and physical impacts of these proposed actions.

The identification of potential project opportunities through targeted stakeholder outreach, along with a clear understanding of the status of existing assets and consideration of current trends and forecasts, will inform the state's prioritization of projects for future investment. This chapter contains a project inventory that list the currently funded projects that are ongoing as well as other potential projects that have been identified by stakeholders during this statewide Rail Plan update but are not yet funded and are intended for implementation within the next 20 years. The advancement of stakeholder-proposed projects for future funding opportunities will consider public benefits and impacts related to safety, resiliency, economic development and employment, rail capacity and congestion by corridor, the environment, energy consumption, greenhouse gas emissions, and regional balance.

State funding programs that can benefit the rail industry are identified and discussed, as well as opportunities to leverage federal funding. Strategies to maintain federal funding compliance and maintain compliance with other U.S. Department of Transportation (USDOT) and Federal Railroad Administration (FRA) mandates, guidelines, and requirements are described. Predicated on rail needs and issues, this chapter categorizes specific needs and associated opportunities and identifies the policies, programs, strategies, and funding necessary to achieve the state's rail vision.

Texas Rail Vision

TxDOT Rail Vision

As part of the previous 2019 Texas Rail Plan and this 2024 Texas Rail Plan, TxDOT held a series of workshops and invited rail stakeholders to solicit input into the creation of a vision for Texas freight and passenger rail for the future. These rail visions were consolidated into the most essential needs of and opportunities for the state with regard to its rail network, and in consideration that freight and passenger rail improvements in Texas are predominantly a function of private investment to meet market demands. The state lacks available funding and has a limited regulatory role at present.

The consolidated vision for this State Rail Plan as previously stated in Chapter 1 is as follows:

> *The State of Texas will work with private rail providers to improve the efficiency and connectivity of the rail network to expand the State's economic competitiveness, improve safety, especially at highway-rail grade crossings, and reduce congestion on our roadways. The State supports a multimodal approach to expanding transportation opportunities that are supportive of all citizens of Texas.*

Rail Program Goals and Objectives

As discussed in Chapter 1, this Texas Rail Plan is intended to integrate with and expand upon *Connecting Texas 2050*, the Texas Long-Range Transportation Plan, and *Texas Delivers 2050,* the Texas Freight Mobility Plan (TFMP). The rail program vision encompasses goals and objectives consistent with both plans. These are:

- **Safety –** which includes the reduction of rail-related fatalities and serious injuries, especially regarding safety at highway-rail grade crossings, and the elimination of conflicts between transportation modes wherever possible.
- **Asset Preservation and Modernization –** which includes achieving a state of good repair of the rail network, especially those assets owned by TxDOT, and using innovative technologies to ensure safety and efficiency of passenger and freight movement.
- **Mobility and Reliability –** which is aimed reducing rail congestion and improving rail system efficiency, capacity, and performance, including both freight rail and passenger rail travel time reliability.
- **Multimodal Connectivity –** which is aimed at providing both freight and passenger choices by improving the rail system and increasing and providing intermodal and multimodal connections.
- **Economic Vitality –** which involves selecting projects that strengthen and modernize Texas' position as a trade and logistics hub and support job growth, mobility, and opportunities to expand existing industries and attract new industries.

Texas' long-term rail vision is intended to integrate with other statewide transportation planning efforts, including *Connecting Texas 2050*, the state rail plans of neighboring states, and regional multi-state rail plans, as appropriate.

Passenger Rail Planning

The 2021 Oklahoma State Rail Plan is supportive of continued improvement of the Amtrak *Heartland Flyer* intercity passenger rail service between Fort Worth and Oklahoma City, including the potential implementation of a second daily round-trip and the extension of the route north to Newton, Kansas.

The 2020 Louisiana State Rail Plan is supportive of prior planning efforts to study the feasibility of establishing intercity passenger rail service in the I-20 corridor between Fort Worth and Amtrak's long-distance *Crescent* at Meridian, Mississippi (prior to the 2023 Corridor ID grant award to the Southern Rail Commission). These include two 2015 studies – one by Amtrak on behalf of TxDOT and one by the Northwest Louisiana Council of Governments (NLCOG) – as well as a 2016 NLCOG study and a 2017 TxDOT/University of New Orleans Transportation Institute study. The Louisiana State Rail Plan also supports potential new regional intercity passenger rail service between Fort Worth and Shreveport/Bossier City, which was covered in the 2015 Amtrak/TxDOT study and a study by the North East Texas Regional Mobility Authority. This service would add four new stops on the existing *Texas Eagle* segment of the route between Mineola and Dallas, whereas the I-20 Corridor (as proposed by the Southern Rail Commission) would only serve the existing *Texas Eagle* stops in Texas (there is the potential for both new routes to also stop at the existing CentrePort/DFW commuter rail station). The Shreveport-Bossier (Louisiana) Convention & Tourist Bureau and the cities of Bossier City and Ruston, Louisiana, have also voiced their support to TxDOT for the establishment of intercity passenger rail service in the I-20 corridor. To date, studies assessing the implementation of passenger rail service in the I-20 corridor have not been reviewed by the host freight railroads. Any type of service expansion would require agreement by all parties.

The 2020 Louisiana and 2014 New Mexico state rail plans identified that those states supported improvements to the existing Amtrak long-distance *Sunset Limited* service from Los Angeles to New Orleans via El Paso, San Antonio, and Houston, with the New Mexico plan explicitly calling for the route's frequency of operation to be increased to daily.

Mexico has considered the feasibility of a Mexico-U.S. high-speed rail line on a dedicated right-of-way from Monterrey in Nuevo Leon state to San Antonio with the potential to move passengers between the two cities in about 2 hours. TxDOT attended meetings with officials from the USDOT and Mexico that included discussion of this proposed concept, and the 2017 FRA-TxDOT I-35 Corridor Study included a San Antonio to Laredo link, with possible future extension to Monterrey. Local elected officials along the route have endorsed this corridor dating as far back as 1992. Mexico's Regulatory Agency for Rail Transport commissioned a $2 million feasibility study for a Monterrey to San Antonio route in 2021.

As discussed in Chapter 3, pursuant to the Infrastructure Investment and Jobs Act of 2021 (IIJA), the FRA established the Corridor Identification and Development Program (CIDP) in 2022 and made its first round of selections of corridors to participate in the program in December 2023. The CIDP is intended to fund and guide the planning and development of new and enhanced existing intercity passenger rail corridors (primarily those under 750 miles in length) from concept through service development planning, preliminary engineering, and environmental/cultural impact review to the point where they are ready for construction or implementation. Among the 69 corridors selected in the first round are two sponsored by TxDOT and five others that are wholly or partially within Texas.

Sponsored by TxDOT:

- Texas Triangle: Dallas/Fort Worth to Houston (conventional rail)
- Texas Triangle: Houston to San Antonio

Sponsored by Others:

- *Heartland Flyer* northward extension to Newton, KS (Kansas Department of Transportation)
- Amtrak Texas (Dallas to Houston) High Speed Rail Corridor (Amtrak)
- Daily *Sunset Limited* Service (Amtrak)
- Fort Worth to Houston High Speed Rail (limited to Fort Worth to Dallas; North Central Texas Council of Governments)
- I-20 Corridor (Fort Worth to Meridian, MS; Southern Rail Commission)

TxDOT is also proceeding with planning for the third leg of the Texas Triangle, Dallas/Fort Worth to San Antonio via Austin.

Also pursuant to the IIJA, the FRA has undertaken a Long Distance Service Study, a systems planning exercise to examine the potential to restore discontinued long-distance passenger rail routes, increase the service frequency of existing long-distance routes, and establish new long-distance routes. In July 2024, this study produced a vision network of 15 "preferred routes" that would increase interregional connectivity and enable the national passenger rail network to serve more destinations. Of these routes, seven pass through Texas, six of which pass through Dallas/Fort Worth. If these routes were to be implemented, Dallas/Fort Worth would become a major national passenger rail hub:

- Dallas/Fort Worth to Miami via Shreveport, Baton Rouge, New Orleans and the Florida East Coast Railway
- Dallas/Fort Worth to Atlanta via Jackson and Meridian, MS
- Dallas/Fort Worth to New York City via Oklahoma City, Tulsa, St. Louis, Indianapolis, Columbus and Pittsburgh
- San Antonio to Minneapolis/St. Paul via Dallas, Tulsa, Kansas City and Des Moines
- Houston to Denver via Dallas/Fort Worth, Amarillo and Pueblo, CO
- Dallas/Fort Worth to San Francisco via Midland/Odessa, El Paso, Phoenix and Bakersfield
- Phoenix to Minneapolis/St. Paul via Albuquerque, Amarillo and Kansas City

Texas-Mexico Border Transportation Master Plan

TxDOT published the Texas-Mexico Border Transportation Master Plan (BTMP) in 2021 through cooperation and participation with the Border Trade Advisory Committee (BTAC), Binational Regional Steering Committees (BNRCSs), and public and private sector partnering agencies and stakeholders in Texas and Mexico. The BTMP is a comprehensive, multimodal, long-range plan for the Texas-Mexico border region and identified transportation issues, needs, challenges, opportunities, and strategies for moving people and goods efficiently and safely across the Texas-Mexico border, the border regions, and beyond. The BTMP includes actionable solutions to address the limitations and bottlenecks of the current transportation system. The BTMP also identified a comprehensive set of recommended policies, programs, and projects proposed by stakeholders. As part of the stakeholder outreach for the BTMP, TxDOT engaged and consulted with the Class I railroads.

New Mexico Freight Projects

TxDOT has also provided support and information to the New Mexico Border Authority and its partners for the Santa Teresa International Rail Study.[1] The study, released in 2016, by the New Mexico Border Authority in coordination with the State of Chihuahua, evaluated the potential environmental impacts and economic benefits of relocating the existing international rail crossing between El Paso, Texas, and Ciudad Juárez, Chihuahua, Mexico, Texas to a westerly location entering the United States near Santa Teresa, New Mexico. The concept did not include costs or impacts associated with the potential relocation of UP and BNSF facilities in El Paso or potential rail line and facility relocations on the Mexican side of the border.

TxDOT will also continue to work with New Mexico DOT and Union Pacific on improvements to improve operations within and approaching UP's Santa Teresa Intermodal Ramp, located just west of El Paso in Santa Teresa, NM. The terminal opened in 2014 on a 2,200-acre site along UP's Sunset Route linking El Paso and Los Angeles. The $400 million terminal includes a fueling station, crew change buildings, and an intermodal ramp with an annual lift capacity of around 225,000 containers.[2] The run-through fueling facility consolidated three existing fueling terminals in El Paso into one centralized facility, improving train speed and efficiency in the region. UP constructed an additional block swap yard at the Santa Teresa terminal that opened in 2019. The additional block swap yard allows container blocks to be added to passing trains faster and more efficiently.

National Strategic Rail Corridor Network

Texas will continue coordinate as needed with the U.S. Military Surface Deployment and Distribution Command's Transportation Engineering Agency (TEA), which oversees the federal National Strategic Rail Corridor Network (STRACNET). The STRACNET is comprised of an approximately 41,300-mile national, interconnected network of rail corridors and associated connector lines most important to national defense. STRACNET-designated routes provide main line rail throughput capability as well as access to major defense contractors, logistics sites, and military facilities critical to national defense. Figure 5-1 shows the STRACNET system in Texas.

1 https://www.nmlegis.gov/handouts/NMFA%20081516%20Item%202%20CSR_Feasibility_Final_2016-04-29.pdf

2 https://www.uprr.com/newsinfo/releases/capital_investment/2014/0528_santateresa.shtml.

Figure 5-1: The Strategic Rail Corridor Network in Texas

Source: Transportation Engineering Agency

Rail Agencies

Rail Agencies and Authorities

As noted in Chapter 1, TxDOT's Rail Division was established in December 2009 in response to a renewed and growing interest in rail transportation statewide for both the movement of people and goods. The Rail Division is generally responsible for statewide rail planning, implementing rail-related policies, and administering state and federal funds, when available.

Chapter 1 also identifies other state and local public entities that collaborate with the private sector to carry out, administer, or assist in rail operations planning in the state. These entities include TxDOT's Traffic Operations Division, TxDOT district offices located throughout the state, local transportation authorities that manage regional commuter rail or rail transit systems, Rural Rail Transportation Districts (RRTDs), MPOs, and several local public and private economic development agencies.

This Texas Rail Plan does not recommend any changes to TxDOT's Rail Division, nor does it recommend the creation or dissolution of any other authorities or agencies.

Rural Rail Transportation Districts

How Rural Rail Transportation Districts are Formed

First authorized in the 67th Texas Legislature in 1981, Rural Rail Transportation Districts (RRTDs) are formed at the county government level by simple resolution of one or more county commissioners' court(s) under rules outlined in Texas Statutes and the Texas Transportation Code.[3] The creation of an RRTD does not require approval by TxDOT or any other state-level planning authority. RRTDs are considered subdivisions of Texas state government with the:

- Power to purchase, operate, and/or build new railroad and intermodal facilities.
- Right of eminent domain.
- Ability to issue revenue anticipation bonds.

Even with these legal authorities, RRTDs have not been granted the power to levy taxes to fund their activities.

How Rural Rail Transportation Districts are Funded

While a small number of RRTDs have received specific legislative appropriations from state general revenue through TxDOT over the years to preserve vital rail infrastructure or rights-of-way (ROW), most have not received any direct state-level funding support. A much smaller number of RRTDs have been able to generate enough revenue from rail service or other uses of existing assets to hire a third-party rail operator for continued rail service. The only statutory funding source that has been made available to RRTDs, other than receiving occasional donations of cash and/or real property (i.e. grants), has been the authority to issue revenue bonds and the use of anticipation notes. As a result, most RRTDs have had limited success in developing the business capital necessary to prevent abandonment proceedings in the long-term or to develop large-scale economic opportunities that might support continued or expanded rail operations.

Number of RRTDs in Texas

As of 2025, the number of known RRTDs created in the state is 45. Table 5-1 shows a summary of the type and number of RRTDs in Texas. Of 254 counties in Texas, 90 participate in at least one RRTD. Of the 45 RRTDs in the state, 29 are single-county districts, and 16 include more than one county.

Table 5-1: Number of Rural Rail Transportation Districts in Texas

	Formed Prior to 2002	Formed Since 2002*	Total
Number of Participating Counties	70	25	95
Single-County RRTDs	8	20	28
Multi-County RRTDs	12	3	15
Total Number of RRTDs	20	34	43

. Source: Texas A&M Transportation Institute, Rural Rail Transportation Districts (RRTDs) Update, June 2013 (Updated 2025) This table includes two (2) RRTDs that have since been dissolved by County order.

3 Roop, S., C. Morgan, J. Warner, L. Olson, and L. Higgins. Texas Rural Rail Transportation Districts: Informational Guidebook for Formation and Evaluation. TxDOT Research Report 4007-P1. TTI, 2001.

Prior to 2002, only 18 known RRTDs had been formed in the state. In 2002 and since, 27 more RRTDs had been formed bringing the total number of known RRTDs to 45. The number of counties participating in an RRTD has also increased since 2002 from 70 to 90. A majority of the RRTDs created in 2002 and after (23 of the 27) are single-county districts, reflecting growth in single-county RRTDs formation following the 1997 change in the RRTD statutes.

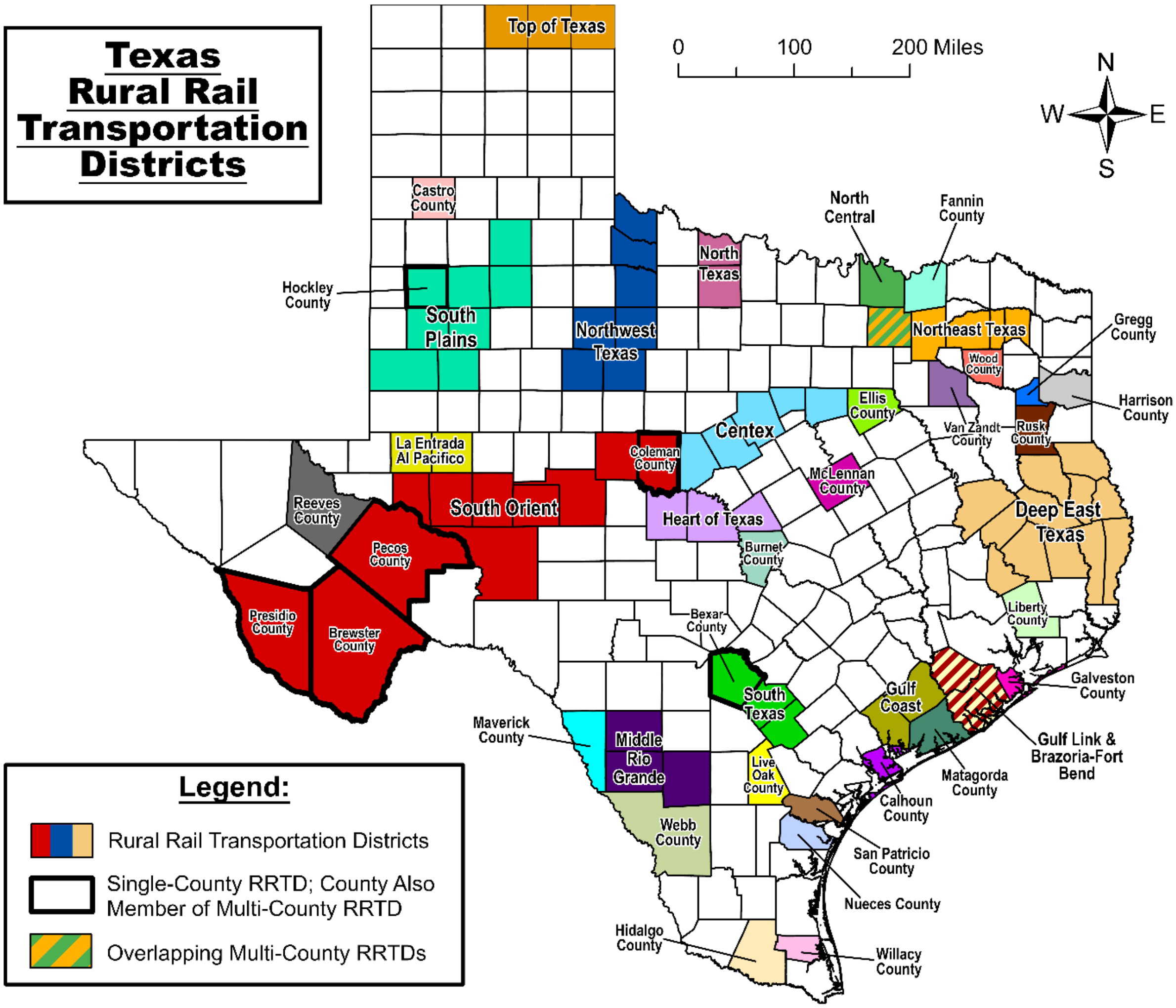
The formation of RRTDs seems to have slowed in the years since the last full report on RRTDs was completed in June 2013.[4] Only two RRTDs, the Brazoria-Fort Bend Rail District (BFBRD) and the Heart of Texas Rural Rail Transportation District, has been formed since the 2013 report.

The BFBRD is made up of the two counties that also form the Gulf Link RRTD, and both the Gulf Link and the BFBRD are unusual in that both districts have been formally dissolved by the counties that created them. Most other districts that are inactive continue to exist in name only. The Heart of Texas RRTD was created by three Central Texas counties in 2021 to retain or replace short line operations within their counties in light of rail-served manufacturing facilities losing major customers. Also of note is the activity of the La Entrada al Pacifico RRTD and other rail districts in the Permian Basin that have been busy studying potential new rail routes to add rail capacity in the region for oil exploration and development since the 2013 RRTD study was completed. Figure 5-2 displays a map showing the 453 RRTDs known to have been created in Texas since 1981. The distribution of participation among the 90 counties participating in an RRTD includes:

- Sixty-one counties participating as members of a multi-county RRTD.
- Twenty-nine counties participating as a single-county RRTD.
- Six counties participating as members of a multi-county RRTD that also have created a single-county RRTD.
- One county (Collin County) participating as a member of multiple multi-county RRTDs.

4 Morgan, C., J. Warner, and B. Sperry. A report to Texas Department of Transportation (TxDOT) Rail Division (RRD) submitted by the Texas A&M Transportation Institute, Rural Rail Transportation Districts (RRTD) Update June 2013 (https://ftp.dot.state.tx.us/pub/txdotinfo/rail/rural/rrtd-update.pdf).

Figure 5-2: Map of Rural Rail Transportation Districts Formed in Texas



Source: TxDOT, Rural Rail Transportation Districts (RRTDs) (Updated 2025)

Primary Motivations for Forming RRTDs in Texas

Counties cited several motivations for the formation of RRTDs, generally falling into the following three categories:

- Rail Preservation/Prevent Abandonment - The RRTD was formed in response to proposed abandonment of a railroad line within the RRTD's jurisdiction, generally for the purpose of opposing rail abandonment/removal and preserving the line for future use.
- Economic Development - The RRTD was formed to promote economic development within the RRTD jurisdiction, including construction of railroad spur lines to single industries, larger multi-parcel industrial parks, or construction of new railroad lines to promote alternative (i.e., "dual") rail service.
- Improved Passenger Rail Service - The RRTD was formed largely to promote establishment of improved passenger rail service along an existing Amtrak route.

Among the 43 remaining active RRTDs identified in the state, 15 (35%) were formed primarily in response to the threat of rail line abandonment, 19 (44%) were formed to promote economic development, 4 (9%) were formed for

multiple reasons, and at least one RRTD was created primarily for promoting improved passenger rail service. The primary motivation for RRTD formation was not conclusively identified for three RRTDs in the 2013 report.

Activity/Status of Individual RRTD Boards

As part of the 2013 reporting efforts, researchers attempted to ascertain the current activity status of each RRTD and its appointed board of directors. RRTD boards of directors were characterized as active, semi-active, or inactive based upon (1) if the RRTD has an officially appointed board with regular meetings (active), (2) whether a board has officially appointed members but has no regular meetings (semi-active), or (3) has neither active appointees nor meetings (inactive).

Although monthly meetings are required by the RRTD statutes, several of the boards meet on a bi-monthly or quarterly basis when there is little activity. Others, in active pursuit of a project, also reported meeting biweekly or as often as necessary to complete their work. Using these criteria, among the 43 known RRTDs, 13 (30%) had an active board of directors, 8 (19%) had a semi-active board of directors, and 20 (47%) had an inactive board of directors.

In 2025, researchers reached out to County Judges of the counties included in RRTDs listed in the 2013 report to determine current status. As a result of that outreach, of the 43 remaining known RRTDs, seven (16 percent) were reported to be active by their County Judges, who were able to verify that Board members were being actively appointed; twenty-six (61 percent) were reported to be inactive; and the status of ten (23 percent) remained unknown or undetermined as county-level outreach was unsuccessful or inconclusive

Substantive Changes to RRTD Statuses and Roles Over Time

The statutes governing RRTD formation have changed over time. Between 1981 and 1997, RRTD statutes required that two or more counties cooperate to form a district. During this period, multicounty RRTDs were generally created to prevent loss of rail infrastructure to rail line abandonment or to preserve abandoned rail ROW for redevelopment and possible reinstitution of rail service at some point in the future. In 1997, the 75th Texas Legislature passed several amendments to the RRTD statutes including a provision allowing single counties to form a RRTD.[5] Since that time, there has been renewed interest and a noticeable increase in the number of RRTDs being formed; however, the emphasis in formation of RRTDs has largely changed from multi-county rail corridor preservation to be more based around single-site, rail-based economic development projects within an individual county creating the district.

Other, more recent legislative actions regarding activities of RRTDs have included:

- HB 2660 of the 80th Legislature, which authorized the Governor’s Office to make Texas Enterprise Fund economic development grant funds available to TxDOT to assist RRTDs in rural rail development although no additional money for this purpose was allocated. No grants have been made to RRTDs under this provision.
- SB 18 of the 82nd Legislature, which required all existing state entities with eminent domain power to file with the state comptroller by December 31, 2012, or lose this power effective September 1, 2013. Only six of the existing RRTDs complied with this deadline placing the eminent domain powers originally granted to the remaining, pre-existing RRTDs in legal question; however, any RRTDs newly formed after this effective date were not specifically impacted by this bill’s provisions.

5 Morgan, C., S. Roop, and J. Warner. Texas Rural Rail Transportation Districts: New Roles and Relationships. TxDOT Research Report 4007-2. TTI, 2002.

Primary RRTD Activity Categories

Notable RRTD rail planning and associated activities over the past two decades may generally be grouped within four categories:

- Railroad Right-of-Way/Rail Line Ownership Related Activities - One of the most important powers of an RRTD is the ability to own railroad right-of-way (ROW) and/or infrastructure. Many RRTDs have used this power to purchase railroad ROW and/or infrastructure threatened with abandonment or otherwise preserve rail structures and/or ROW for future use.
- Other Railroad-Related Activities - Railroad-related activities undertaken by RRTDs are not limited to the purchase of railroad infrastructure and ROW or other rail line ownership activities. Many RRTDs have actively pursued other railroad-related projects and proposals.
- Economic Development Activities - Many RRTDs are active in pursuing projects to support economic development activities in the district-forming county (or counties). While many RRTD projects have positive outcomes toward general economic development for the larger countywide area or region, others are specifically focused on economic development activities at specific sites, such as new industrial parks or preservation or construction of rail spurs to single industries.
- Non-Railroad-Related Activities - In addition to railroad-related activities and economic development initiatives, some RRTDs have participated in other non-railroad activities such as construction of hiking/biking/horseback riding trails or purchase of former rail ROW for use as other types of transportation facilities (e.g., toll road).

RRTDs, as local planning entities exclusively related to rail transportation, have exhibited both success and failure at their two primary missions of preserving rail infrastructure and encouraging rail-based economic development over the 38 years that they have been authorized in state law. The few RRTDs that have been able to garner needed funds through government grants or generate funding directly through rail operations activities have been able to retain rail service where the rail lines would have been otherwise abandoned and removed. As the state becomes more involved in rail planning activities and demand for additional rail service becomes more acute, interested local officials have a continued role to play in protecting rail service and encouraging rail-based economic development.

Program Effects

The following section presents the Texas Rail Plan's Rail Service and Investment Program for the short range (4 years from 2024 to 2027) and for the long range (17 years from 2028 to 2046). Freight rail projects planned and programmed solely by the Class I railroads are generally not included in the investment program, since the Class I railroads are considered capable of funding many of their own projects. However, projects involving Class I railroads that include public-sector financing, are implemented as public-private partnerships, or have been identified by the Class I railroads for incorporation in state and regional mobility plans have also been included in the Texas Rail Service and Investment Program.

The freight and passenger projects presented in the short-range and long-range Texas Rail Service and Investment Program include projects to:

- Expand capacity and infrastructure.
- Maintain a state of good repair.
- Improve operations in high-volume locations.

- Expand rail/port connectivity and capabilities.
- Enhance efficiency and security at rail border crossings.
- Establish or enhance access for rail customers.
- Upgrade Class III railroad infrastructure.
- Improve safety.

These projects offer significant potential benefits.

As most rail passengers are diverted from automobiles, the service improvements and expansions proposed in the Texas Rail Service and Investment Program would result in a more extensive passenger rail transportation network; enhanced mobility; increased tourism and access to job opportunities; and increased energy efficiency.

For rail freight improvements, the benefits include increased transportation options and competition resulting in lower costs for shippers, less highway congestion and roadway damage, and reduced environmental and energy impacts. By their nature, grade crossing improvement projects, as well as other rail-related improvements, also increase transportation safety.

Short-Range Rail Freight Program Effects

Even though the proposed short-range program is restricted in size due to funding availability, the projects included provide significant public benefits. These effects include not only the transportation-related economic and socio-environmental benefits involved in providing competitive rail service itself as described in Chapter 2, but also the preservation, protection, and enhancement of state-owned assets; introduction of new competitive alternatives for rail users; more efficient service for rail customers; and increased safety through the reduction of rail-highway interfaces and improvements to existing at-grade crossings.

The proposed improvements to the South Orient Rail Line (SORR) leverage the previous public investments made to improve operating efficiency and attract new traffic. Improvements at the SORR's Presidio border crossing will create additional traffic-handling opportunities and establish competitive access for shippers, which usually results in lower transportation costs, a major factor in attracting additional businesses to the line.

The Houston West Belt Subdivision sealed corridor project significantly reduces the potential for highway-rail crossing incidents and provides increased travel efficiency for motorists across this busy rail corridor, while the program of at-grade crossing improvements will provide an increased level of safety at those locations. The project will replace at-grade road crossings with grade separations at four locations on a 5.9-mile segment of the West Belt Subdivision between Tower 26 and TNO Junction.

Long-Range Rail Freight Program Effects

The projects included in the Long-Range Rail Freight program are more varied as to the types of project and larger in scale and cost than most short-range projects. Thus, the expected benefits from these projects would logically be larger and have greater impacts. The range of projects involve main line capacity expansion through double tracking, improved rail efficiency through the construction of wye tracks, highway-rail grade separation projects, and improved rail operations at the Mexican border. The following is a short discussion of the specific public benefits involved in some of these projects.

The proposed improvements to the SORR and NETEX rail lines serve multiple purposes. As rail lines in which the state has an ownership or security interest, these improvements protect the public investments made in these lines and continue the trend of steadily increasing traffic levels, which result in increased financial viability and the ability to implement additional improvements through increased line revenue and carload fees. In addition, new interchanges will create competitive access to shippers, which usually results in lower transportation costs, a major factor in attracting additional businesses to the line.

The Neches River Rail Crossing and Port Terminal Railway Mainline projects provide critical system capacity for through rail freight service, as well as improved passenger service for the Neches River project. These projects contribute to the state's overall transportation system capacity, reduce reliance on highway travel, and enhance the state's port and intermodal operations.

The public benefits associated with grade separation projects are usually significant, and generally include reduced roadway congestion, improved roadway and motorist safety, travel time savings, enhanced transportation mobility, and improved air quality from the reduction in idling motor vehicles.

Passenger and Commuter Rail Program Effects

Implementation of the short-range and long-range projects and services would expand residents' ability to access job markets, other business services, and educational, medical, and other beneficial services. Station locations could serve as economic hubs providing expanded services to downtown areas and new services where stations are created.

The availability of increased rail passenger service in and of itself should reduce the amount of energy consumed, greenhouse gases generated, and highway congestion and delay. The increased level of rail passenger service should also not negatively affect and may benefit the capacity and efficiency of rail freight service as improved capacity and signal/communication systems would be required by the rail line owners, as well as the overseeing federal and state governments.

Rail Project Impact and Financing Analysis

FRA's 2013 State Rail Plan Guidance requires states to describe how capital projects were analyzed, with regard to their impacts on passenger rail ridership, potential diversion from highway and air to rail, passenger rail revenues and costs, benefits from freight rail projects, etc. States are also required to describe their 4- and 20-year (or more) financing plans for passenger rail capital and operating costs. Discussion of these analytical areas for both passenger and freight rail projects is included in the Texas Rail Service and Investment Program presented in Texas' Potential Short- and Long-Range Rail Projects.

Passenger Rail

Passenger Rail Project Impact Analysis

The passenger rail projects identified for the short-range and long-range Texas Rail Service and Investment Program consist of:

- Continued state funding for the Amtrak *Heartland Flyer* service between Fort Worth and Oklahoma City, as required under federal law (PRIIA) for intercity passenger rail corridors of 750 miles or less.
- Studies of potential new passenger rail corridors and enhancements to existing corridors under the FRA's Corridor ID Program being conducted by TxDOT and other entities.
- Regional and local projects to expand existing or establish new commuter rail services in Austin, Dallas, Fort Worth, Houston, and South Texas.
- The investor-driven Texas Central/Amtrak Texas high-speed rail project, which is being privately financed and is not a recipient of state transportation funding.

Texas currently has a limited amount of control over the rail passenger operations within the state. Commuter and rail transit systems are owned, operated, and maintained by regional or city authorities. Amtrak is responsible for the financing and operation of the long-distance passenger rail services in the state. These limitations also reduce the state's ability to significantly affect positive impacts on other modes or influence substantial modal diversions.

Passenger Rail Project Financing Plan

TxDOT does not have a dedicated funding source for passenger rail projects. Funding for support of existing passenger rail services or for additional services must be approved by the Texas Legislature. Any capital investments related to overall corridors must be made at the regional level with concurrence by Amtrak, the rail line owners, and other states as applicable. The current intercity passenger rail studies underway funded by FRA under the Corridor ID Program, with matching funds provided by TxDOT, are anticipated to provide benchmark information to determine whether further analysis and potential investment in these services are merited.

Privately funded ventures and regional agencies have begun to take active roles in the efforts to increase intercity passenger rail service within the state. This trend is expected to continue. The private venture Texas Central Partners is pursuing financing on its own for its proposed high-speed rail system between Dallas and Houston without assistance from TxDOT, and in 2023 forged a partnership with Amtrak to continue advancing the project (now referred to as Amtrak Texas High Speed Rail). In May 2017, the Texas State Legislature enacted Senate Bill No. 977 (SB 977), which amended Chapter 199 of the Transportation Code to prohibit the appropriation or use of state funds for the planning, construction, operation, maintenance, or security of any high-speed rail service (above 110 mph) operated by a private entity, except as required by federal law or other state law, including the National Environmental Policy Act of 1969.[6]

As discussed in Chapter 3, the regional planning agency NCTCOG is working with FRA and other stakeholders to continue the planning, design, financing, construction, operation, and maintenance of the Dallas-Fort Worth Core Express Service.[7] TxDOT anticipates that the future development and implementation of other intercity passenger rail services will be carried out by regional or local public agencies.

Passenger Rail Operations Financing Plan

State agencies in Texas are appropriated funds by the Texas Legislature on a biennial basis. As a result, TxDOT makes a biennial Legislative Appropriations Request for the upcoming two consecutive fiscal years, requesting the estimated

6 https://capitol.texas.gov/tlodocs/85R/billtext/pdf/SB00977F.pdf#navpanes=0.

7 http://dallascityhall.com/government/Council%20Meeting%20Documents/msis_4_dfw-core-express-update_combined_111317.pdf.

amount of funding TxDOT expects to receive and spend in that timeframe.[8] TxDOT's most recent funding request, the FY 2024-2025 Legislative Appropriations Request, dedicates 0.06% of the Total Goal funds requested to rail programs and 1.5% to transit, aviation and ferry programs, leaving the remaining approximately 98.4% of its funding to the development, delivery and maintenance of state highway projects. TxDOT does not have a funding program specifically dedicated to passenger rail improvements. Under the current uses of transportation funds authorized by the Texas Legislature, passenger rail projects can be funded using the following transportation sources:

- **Texas Mobility Fund Revenue.** Article III, Section 49-k of the Texas Constitution created the Texas Mobility Fund within the treasury of the State of Texas.[9] The Mobility Fund is administered by the Texas Transportation Commission as a revolving fund to provide a method of financing for the construction, reconstruction, acquisition and expansion of state highways, including costs of any necessary design and costs of acquisition of ROW, as determined by the Commission in accordance with standards and procedures established by law. The Mobility Fund may also be used to provide state participation in the payment of a portion of the costs of constructing and providing publicly owned toll roads and other public transportation projects—including passenger rail projects—in accordance with procedures, standards, and limitations established by law. Fund revenue sources may include proceeds of sale of obligations, appropriations, other money not dedicated by the constitution, and money received from a regional mobility authority.[10]
- **Texas Mobility Fund Bond Proceeds**. The creation of the Mobility Fund allowed TxDOT to issue bonds secured by future revenue. This bond revenue allowed the acceleration of mobility projects throughout the state.
- **State Highway Fund – Non-Dedicated**. A limited amount of State Highway Fund money is available under "State Highway Fund—Non-Dedicated" funding. An annual transfer of approximately $150 million goes to the Texas Emissions Reduction Program (TERP) Fund.
- **Regional Subaccounts**. Regional Subaccount funds may only be used for transportation, highway, and air quality projects as defined by Section 228.001 of the Transportation Code in the region where the project from which those funds were derived is located. The revenues are deposited into the State Highway Fund but are not dedicated by the Texas Constitution.
- **General Revenue**. State general revenue can be used on all forms of multimodal transportation in order to pay for exceptional items or legislative directives where other revenues are unavailable due to restrictions or obligations. TxDOT has typically used appropriations from state general revenue funds to provide the operating support for Amtrak's state-supported *Heartland Flyer* passenger train, which is jointly funded with Oklahoma.

TxDOT's appropriations request included a budget request for exceptional items in FY 2024-2025 to be funded with state general revenue, supplementing the limited Non-Dedicated State Highway Fund amounts to pay for other types of transportation projects and services. Among the exceptional items, TxDOT requested $3.5 million in state general revenue for each year (FY 2024 and FY 2025) for public transportation, including the state's continued subsidy of Amtrak's *Heartland Flyer* passenger train between Fort Worth and Oklahoma City. This passenger service has been jointly funded by TxDOT and the Oklahoma Department of Transportation since 2009. Amtrak has sole responsibility for funding the operation of the two long-distance trains serving Texas, the *Texas Eagle* and *Sunset Limited*. Figure 5-3 shows the existing Amtrak routes in Texas, which require operational and maintenance improvements over time.

8 https://ftp.dot.state.tx.us/pub/txdot-info/fin/funding-sources.pdf.

9 https://www.txdot.gov/inside-txdot/division/debt/mobility-fund.html.

10 https://fmcpa.cpa.state.tx.us/fiscalmoa/fund.jsp?num=0365.

Figure 5-3: Existing Amtrak Routes in Texas

Source: TxDOT

Commuter rail and rail transit operators in Texas can be grouped into two different categories for the purposes of project funding: (1) agencies that receive funding directly from the FTA for capital and operating expenses, and (2) agencies that are sub-recipients of funding through TxDOT. Larger metropolitan and urban transit agencies are typically direct funding recipients, whereas smaller urban or rural transit agencies tend to be sub-recipients.

Due to the nature of funding sources for existing, planned, and programmed intercity passenger rail services, the future condition of this mode in Texas is largely dependent on appropriations from the United States Congress through FRA funding and various federal grant programs, and, in the case of high-speed rail, private funding sources and investors. Private investors have been pursuing the development of high-speed rail in Texas, while local and regional agencies have been responsible for the development of commuter rail services with financial contributions from FTA, other federal grant and loan programs, and TxDOT. The establishment of new corridor services without federal financial assistance would require Texas not only to provide financing for the capital improvements needed to upgrade rail lines to passenger service standards, but also to bear the responsibility for service operating losses in accordance with PRIIA legislation.

Considering rising costs for state-supported passenger rail services, and uncertainties with regard to prospective federal rail funding of long-distance passenger rail services, decisions to expand the state's passenger rail program should be supported by a comprehensive planning effort. The more detailed studies of expanded commuter and intercity passenger rail will include a comprehensive examination of all potential funding sources and alternatives.

Passenger Rail Economic Benefits

Most significant rail intercity or commuter rail projects have a positive impact on overall rail passenger ridership, rail passenger miles traveled, modal diversion from highway and air, and increased rail passenger revenues and/or reduced costs. Passenger and Commuter Rail Program Effects also discusses benefits and program effects of passenger rail investment.

Freight Rail

Freight Rail Project Impact Analysis

The freight rail projects identified for the short-range and long-range Texas Rail Service and Investment Program consist of improvements to freight railroad infrastructure in Texas and safety improvements to grade crossings. Whereas large Class I railroads generally have the means to fund their own capital projects, such self-funding is more of a challenge for Class II and Class III railroads, which have smaller physical plants and fewer shippers, severely limiting opportunities to generate revenue. Class III railroads typically earn a fee for providing first-mile/last-mile pick-up and delivery services between freight rail customers and a Class I railroad connection. Some Class III railroads in Texas such as the Texas & New Mexico or the Pecos Valley Southern have only one connecting Class I railroad. Accordingly, the internal cash flow for a Class III is often insufficient to enhance yard and line capacity. These enhancements are needed to accommodate safer and more efficient train operations; to provide improved rail access via enhanced or new transload facilities or industrial trackage; or to upgrade legacy track and bridges to handle heavier loaded car weights of 286,000 pounds, which has become the standard for the national rail system.

Many states, including Texas, have opted to provide support to their Class II and Class III railroads to upgrade their lines via state and federal funding mechanisms. TxDOT can help sponsor applications for federal funding through programs such as RAISE (formerly known as BUILD and TIGER), and the CRISI program among others. Such investments ensure that these railroads can continue to serve their shippers, thus helping to retain businesses and employment and prevent the diversion of freight from rail to truck and the consequent maintenance impacts to the State highway system. Projects seeking competitive federal discretionary grant funding under many of the available programs are typically subjected to a rigorous benefit-cost analysis (BCA) to quantify specific public benefits needed to justify the investment, in addition to narrative description of project merits.

Another key area for state and federal investment is highway-rail grade crossing safety. Improvements include upgrades to warning devices and crossing surfaces, as well as crossing closures and grade separations where appropriate. These projects may be funded through the long running FHWA Railway-Highway Crossings Program (Section 130) or the FRA's Railroad Crossing Elimination Program (RCE), which was launched in 2022. The impacts of such investments are the prevention and reduction of accidental deaths and injuries at highway-rail grade crossings.

Freight Rail Project Financing Plan

As discussed in Chapter 2, Texas has a constitutional limitation that prohibits most direct state transportation fund expenditures from being used for rail projects. TxDOT's financial strategy to support freight and passenger rail projects recognizes the restricted role the state could play in improving rail transportation options and emphasizes the need for careful planning, accessing federal funds, and reliance on public-private partnerships. TxDOT relies on intermittent budget appropriations and revenue initiatives such as carload taxes on its state-owned SORR to develop rail improvement projects, often with federal, state, and local partners.

The main financing mechanisms for state investments in rail lines and in crossing safety were identified in Chapter 2 of the Texas Rail Plan. These include:

- TxDOT Highway-Railroad Grade Crossing Safety Program
- Rail Relocation and Improvement Fund
- Texas State Infrastructure Bank
- Texas Emissions Reduction Program
- Texas Economic Development Bank
- Transportation Reinvestment Zones
- Railroad Grade Crossing and Replanking Program
- Railroad Signal Maintenance Program
- Railroad Grade Separation Program

All of these mechanisms, as well as various federal programs and local contributions, can potentially support the planned investments in the state rail network noted in Texas' Potential Short- and Long-Range Rail Projects.

Freight Rail Economic Benefits

The state of Texas recognizes the public value of a viable short line network, and acting by and through TxDOT, has purchased several rail lines in the state over which railroads operate, including:

- The SORR, which extends approximately 391 miles from San Angelo Junction (in Coleman County, five miles southwest of Coleman) through San Angelo to Presidio at the Texas-Mexico border, and is leased to a private operator, Texas Pacifico.
- Bonham Subdivision, located in Lamar and Fannin counties and extending approximately 33.5 miles.
- A railroad line linking Sulphur Springs and Greenville that has been acquired by the Northeast Texas Rural Rail Transportation District (NETEX), which established an operating lease with Northeast Texas Connector (NETC) for providing freight rail service.

The public benefits of state investment in the Texas short line network include the transportation related economic and socio-environmental benefits involved in providing competitive rail service itself, as well as the preservation and protection of irreplaceable rail assets. These rail lines have also steadily produced increased traffic levels, which have resulted in former and new shippers receiving cost-efficient service.

In January 2015, TxDOT completed a Benefit Cost Analysis for its recent and planned capital investments in the SORR.[11] Key findings from the Benefit Cost Analysis supporting the investments included:

- $823 million in emissions, safety, and pavement maintenance cost savings over 20-year period from current conditions, Benefit Cost Ratio = 5.58.
- $1,794 million in emissions, safety, and pavement maintenance cost savings over 20-year period from improving the entire line including international gateway, Benefit Cost Ratio = 5.54.

As most of proposed projects in the long-range rail state investment program have yet to be analyzed with regard to their economic feasibility, it is premature to identify any correlation between the level of public investment and benefits.

Rail Program Impacts Summary

As noted in Chapter 2 of this Plan, freight and passenger rail services in Texas provide sizable impacts in terms of cost savings and employment. Palpable benefits of rail improvements include lower transportation costs, enhanced mobility, and multimodal connectivity. The proposed short- and long-range rail investment plans presented in this chapter are intended to have a high correlation between the public funding provided and their intended benefits.

The state's proposed short- and long-range projects are based primarily on:

- Preserving and increasing the efficiency and capacity of freight rail operations in Texas.
- Enhancing rail access and expanding or constructing multimodal facilities for handling freight more economically and efficiently.
- Improving railroad crossings of the international border with Mexico.
- Enhancing safety at highway-rail grade crossings.
- Improving and expanding regional commuter rail services.

Typical benefits from increasing freight rail capacity and upgrading short line railroads are increased operating efficiency and expanded access. Both have positive impacts on the financial health of both the railroad and the shippers being served. New or improved passenger rail operations provide more cost-effective travel alternatives for travelers.

In general, any improvements in operating efficiency and access to rail service for either rail passengers or freight users achieved through continued investment in the rail network would enhance the existing economic and socio-environmental impacts of the state's freight and passenger services.

Rail Studies and Reports

Analysis of the Texas rail network, along with comments provided at the 2024 Texas Rail Plan Update outreach meetings and TxDOT's own communication with freight and passenger-carrying railroads, have resulted in several recommendations for studies to determine the feasibility of future projects or state-sponsored services to improve rail

11 http://ftp.dot.state.tx.us/pub/txdot-info/rail/south_orient/benefit-cost-analysis.pdf.

operations and services in the state. Potential rail studies that could be considered in the future, pending the available staff and/or financial assets required, center on the following areas:

- Enhancement of existing intercity passenger rail services and facilities and development of new intercity passenger rail corridors and services.
- Enhancement of existing commuter rail services and facilities and development of new regional commuter rail corridors and services.
- Freight rail studies, including evaluations of the rail network within specific regions that could enable prioritized investments in additional rail capacity to enhance freight and passenger operations and in facilities that provide rail access.
- Safety enhancements at highway-rail crossings.

These are discussed in more detail below.

Intercity Passenger Rail Studies

Chapter 3 contains detailed discussions of the planning efforts undertaken to date by state, local, and private entities to expand intercity passenger rail service in the state. Current efforts include the following:

- As discussed in Chapter 3, Texas Central Partners and Amtrak are continuing to advance their efforts to establish a privately financed high-speed rail system between Dallas and Houston.
- FRA and NCTCOG are jointly working on planning a new high-speed rail line between Fort Worth and Dallas under the Corridor ID Program, which could connect with or serve as an extension of the Texas Central/Amtrak Texas High Speed Rail line.
- FRA and TxDOT are undertaking feasibility studies (service development plans, funded through FRA's Corridor ID Program) for new short-distance, conventional passenger rail routes on existing rail lines between Fort Worth/Dallas and Houston and between Houston and San Antonio under the Corridor ID Program.
- TxDOT is planning to apply for FRA Corridor ID funding to study a new short-distance, conventional passenger rail route on the existing rail lines between Dallas/Fort Worth and San Antonio via Austin.
- FRA and the Kansas Department of Transportation are planning enhancements to the *Heartland Flyer* route, including an extension north from Oklahoma City to Newton, KS, under the Corridor ID Program.
- FRA and the Southern Rail Commission are planning a new conventional passenger rail route on existing rail lines between Fort Worth/Dallas and Meridian, MS via Shreveport, LA and Jackson, MS under the Corridor ID Program.
- FRA is recommending further study of seven new long-distance passenger rail routes that would serve Texas, six of which would serve Dallas/Fort Worth.
- NCTCOG and five other MPOs in 2020 completed a transportation study to recommend specific alignments and technology options for the Fort Worth-Waco-Temple-Austin-San Antonio-Laredo corridor.

Commuter Rail Studies

All four of the existing commuter rail agencies in Texas—in Austin, Fort Worth, Dallas, and Denton County—are studying initiatives to extend or enhance existing routes and services or add new routes and services. Several additional areas of Texas that currently do not have commuter rail have studied potential new services, as well, such as Houston/Galveston and Hidalgo County. The findings of these studies were detailed in Chapter 3 of the Texas Rail

Plan. Work on advancing new or expanded commuter rail services in Texas is ongoing. Specific studies contained in the Texas Rail Service and Investment Program to expand commuter rail include:

- Dallas Area Rapid Transit – The Silver Line, a 26-mile commuter rail corridor between Dallas-Fort Worth International Airport and Plano, is under construction, with revenue service anticipated to start in late 2025 or early 2026.
- Trinity Railway Express – A program of four projects is underway to increase the capacity and improve the safety, reliability and fluidity of the existing TRE line.
- TEXRail – A 2.1-mile extension is under construction and expected to open in early 2026, extending the route southwest from the existing western terminus at Fort Worth T&P Station to the new Near Southside Station in Fort Worth's Medical District.
- Capital MetroRail – As part of Project Connect, a new 25-mile Green Line commuter rail line will be constructed in phases, with the first phase stretching 8 miles from downtown Austin to East Austin's Colony Park (sharing a portion of its trackage and two stations with the existing Red Line) expected to start construction in 2027, with revenue service potentially beginning in 2033. Further phases would extend the line out to Elgin. Additionally, the existing Kramer station on the Red Line is being replaced with a new Broadmoor station (expected to open in 2025), and planning is underway for a grade separation that would carry the line in an underpass beneath North Lamar Boulevard.
- Denton County Transportation Authority – A-Train Southbound Extension Study: Develop an initial evaluation of extending the A-Train corridor south to downtown Carrollton.

Dallas Area Rapid Transit – The agency's 2045 Transit System Plan recommends preparing studies of promising high-capacity transit corridors to assess modal options, supportive land use plans, and trade-offs in the long term before committing to a specific mode or corridor investment. An initial set of corridors for further study were identified in DART's High-Capacity Corridor Screening Evaluation Report, which was part of the 2045 Transit System Plan. Some of the longer-distance High-Capacity Transit Corridors identified by DART are among the regional passenger rail corridors proposed for implementation in NCTCOG's Mobility 2045 Update regional transportation plan, discussed in Chapter 3. The preparation of Mobility 2045 Update was the product of detailed analysis and extensive coordination, and contains detailed recommendations for expanding all modes of transportation, including freight and passenger rail transportation improvements, to best address regional mobility needs.

Regional Freight Mobility Studies

TxDOT has undertaken a multi-year initiative conducting evaluations of the freight and passenger rail transportation networks in specific metropolitan regions of Texas to identify mutually beneficial mobility improvements. These evaluations build on previous regional freight studies conducted in the previous decade that identified infrastructure improvements such as highway-rail grade separation projects and closures. However, conditions have changed over the past 10 years. Both freight and passenger rail volumes have increased, while many communities in the regions have continued to grow resulting in changing land use and traffic patterns. The new regional freight mobility studies provide a comprehensive analysis of the freight transportation network in a specific region to identify mutually beneficial mobility improvements. The studies will establish a program of projects to address freight and passenger rail mobility needs within the specific regions analyzed.

In 2021, TxDOT, working with NCTCOG, published the Metroplex Freight Mobility Study (Study). The Study conducted a comprehensive analysis of the freight and passenger rail transportation network in the 16-county Dallas-Fort Worth area to identify mutually beneficial mobility solutions.[12] TxDOT commissioned this study of the freight rail network in the Metroplex in response to industry input received during the state multimodal freight planning process. The study was divided into two phases. Phase 1 (the Metroplex Freight and Passenger Rail Integration Study) evaluated the infrastructure solutions to support expanded passenger service on the existing Trinity Railway Express route as well as new passenger service on the Madill Subdivision from Irving to Prosper without negatively affecting freight operations. Phase 2 (the Metroplex Freight Mobility Study) included the analysis, screening, and conceptual engineering and cost estimates for solutions at a select number highway-railroad grade crossings in the Metroplex. The Rail Network Solutions portion of Phase II included an expanded Rail Traffic Controller (RTC) model to evaluate proposed solutions for improving multimodal train movement across the region and identify opportunities for public-private partnerships to advance solutions.

In summer 2024, TxDOT published Phase III of the Study. Phase III identified two locations, CP 217 and Tower 55, as primary locations that needed improvements from Phase II.[13] The Phase III CP 217 study area included the 5-mile freight rail network from Victory Station to SP Junction in downtown Dallas. Phase III also evaluated Tower 55 to delineate a corridor preservation boundary in Fort Worth. Phase III completed conceptual engineering, prepared cost estimates, pre-NEPA review, and analyzed proposed concepts that improved the efficiency of freight transportation and passenger rail movement in the Metroplex. The completion of the Phase III study sets the conditions to advance both projects, which consists of multiple sub-projects, to implementation.

In 2021, TxDOT published the Houston-Beaumont Region Freight Study which encompassed 11 counties bounded by the Houston-Galveston Area Council (H-GAC). The goal of the study was to determine freight rail network and associated roadway constraints and identify for the identification of alternatives for rail and roadway system improvements to address vehicular/rail and freight rail performance within the 11-county region bounded by the Houston-Galveston Area Council and the South East Texas Regional Planning Commission. The study also detailed the methodology and recommendations for near-term, mid-range, and long-range projects that may improve freight mobility in the region.

Safety Enhancements at Crossings Studies

Lastly, the potential for implementation of additional safety enhancements at highway-rail crossings is another important topic for further study in the short- and long-term planning horizon. TxDOT has a robust rail safety program, the details of which are outlined in *Rail Safety and Security Programs in Texas* section within Chapter 2.

TxDOT uses a federally-required priority index to select candidates for at-grade crossing improvements, which considers:

- Average daily vehicle traffic.
- Average daily school bus traffic.
- Average daily train traffic.
- Maximum speed of trains.

12 https://ftp.txdot.gov/pub/txdot-info/rail/mfms-summary.pdf.

13 https://www.txdot.gov/content/dam/docs/rail/final-metroplex-phase-iii-report.pdf.

- Existing type of warning device.
- Past 5-year history of auto/train accidents.

Upon identification of candidate projects based on the results of the priority index above, TxDOT will program crossing improvements, using one or more of the following strategies to improve crossing safety at the site:

- Crossing surface improvements.
- Installation of highway median barriers.
- Grade crossing consolidation/closure.
- Grade crossing signal upgrades.
- Upgrading crossing sign reflector systems.

In 2021, TxDOT published the Statewide Crossing Study. The purpose of the study was to identify rail and roadway system alternatives to improve vehicular/rail interaction and freight rail performance at selected at-grade crossings throughout the state. The study included a screening of all active, public highway-railroad at-grade crossings throughout the state to identify candidate grade separation projects that could potentially improve mobility and reduce vehicular delays. TxDOT undertook this study to provide planning support to its partners in areas within the State where at-grade crossing studies have not been recently studied. The study also included conceptual plan developments, preparation of cost estimates, and initial benefit-cost analysis to support preparation of future planning of these projects and development of potential federal grant applications.

The results of this study identified 20 at-grade crossings as potential grade separation or other improvement projects.

Texas' Potential Short- and Long-Range Rail Projects

This section presents potential railroad projects that support the vision and goals set forth by TxDOT in Chapter 1 of this Texas Rail Plan. Texas' short- and long-range rail project lists differ with respect to the estimated period of implementation and other factors as explained below. The projects shown in the following tables describe the potential projects as to location, project details, and estimated costs. The tables also identify the rail transportation need that the project is intended to address. Figure 5-4 and Figure 5-5 shows the location of the short- and long-range freight and passenger rail projects listed in the tables that follow.

Figure 5-4: Location of Short-Range Freight and Passenger Rail Projects

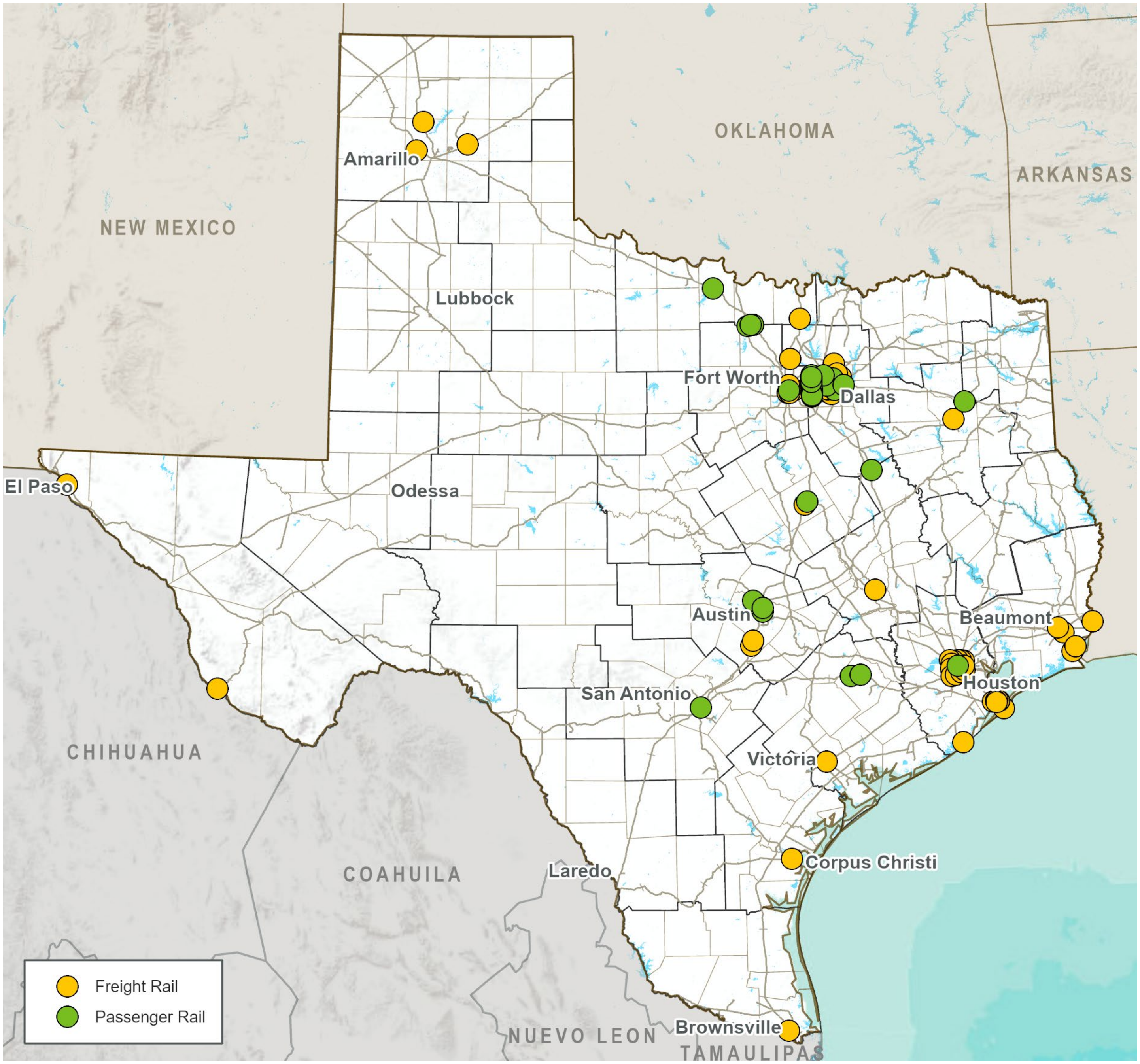
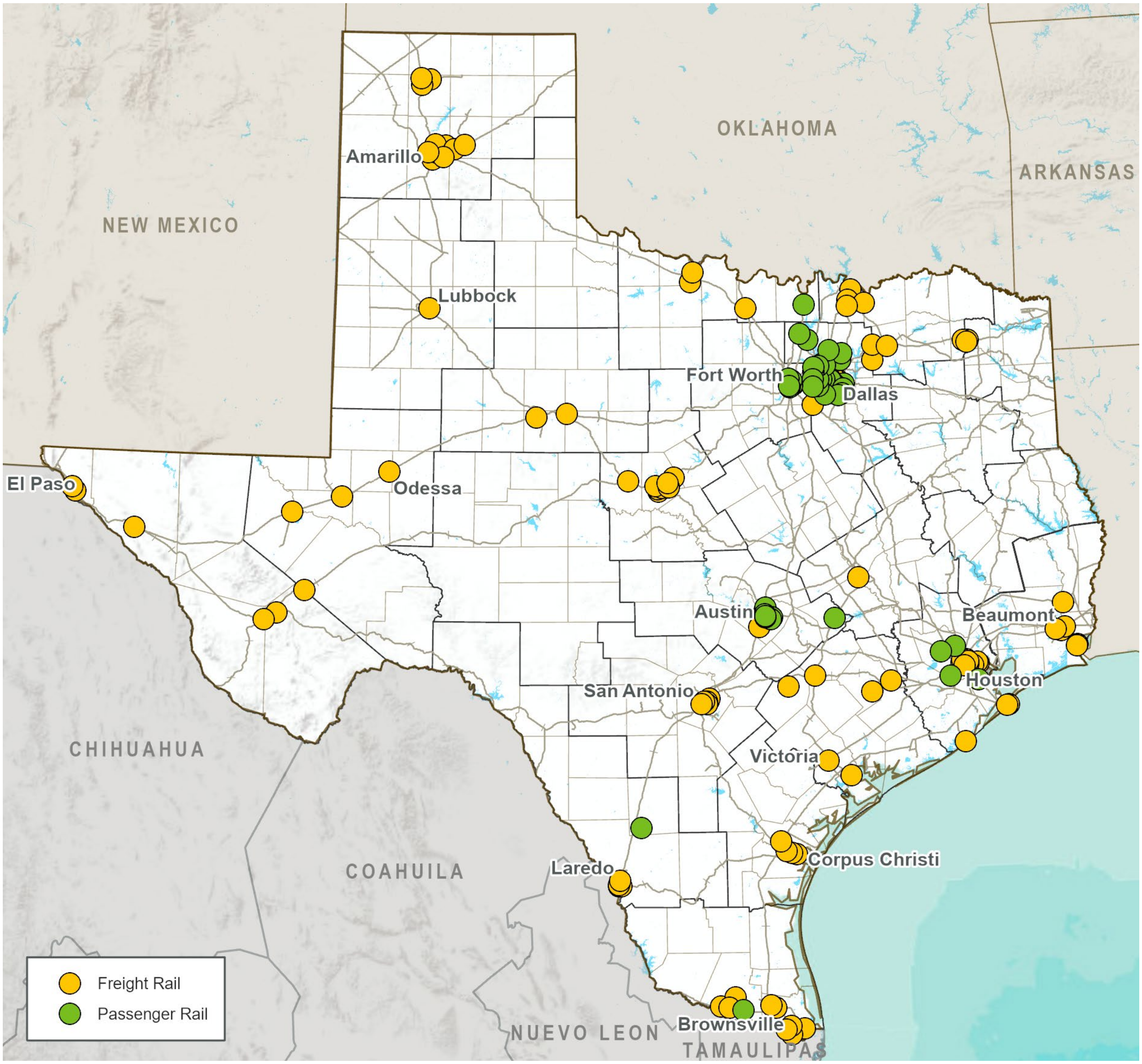


Figure 5-5: Location of Long-Range Freight and Passenger Rail Projects



Short-Range Rail Freight Improvement Projects

The TxDOT Short-Range Program of Rail Freight Projects is shown in Table 5-2. The short-range program consists of projects that could be implemented within 4 years (2024-2027). The list includes projects identified and described by Texas railroads and the State of Texas in the outreach activities conducted during the development of the recently completed Texas Freight Mobility Plan and this Texas Rail Plan. The list is subdivided by:

- Class I Railroad Improvements
- Rail Intermodal/Terminal Facility Projects
- Class III Railroad Improvements
- Freight Rail/Port Projects
- Freight Rail/Border Crossing Projects
- Highway-Rail Crossing Projects
- State-Owned Rail Line Projects
- Other Projects

The table displays the proposed project's TxDOT district location, name and description, estimated cost, project sponsor or source, and project need. Railroads that will benefit from each project are denoted in parentheses within the project description. It should be noted that although the following projects could be implemented within a 4-year timeframe, there are currently no public sector funding sources available to progress these projects.

Table 5-2: TxDOT Short-Range Program of Rail Freight Projects (2024-2027)

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
CLASS I RAILROAD IMPROVEMENTS						
Overall	286K Upgrades	Track upgrades to accommodate heavier, industry standard freight railcars (286,000 pounds) and enhanced railroad access.	N/A		Infrastructure Improvement	
Overall	BNSF Capital Projects	Capacity expansion, track and bridge maintenance, and Information Technology projects on BNSF Railway lines in Texas.		BNSF	Class I Capacity/Infrastructure Improvement	Funded internally by Class I railroad
Overall	CPKC Capital Projects	Capacity expansion, track and bridge maintenance, and Information Technology projects on Canadian Pacific Kansas City lines in Texas.		CPKC	Class I Capacity/ Infrastructure Improvement	Funded internally by Class I railroad
Overall	UP Capital Projects	Capacity expansion, track and bridge maintenance, and Information Technology projects		UP	Class I Capacity/ Infrastructure Improvement	Funded internally by Class I railroad

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		on Union Pacific lines in Texas.				
Dallas	Madill Subdivision Irving Depot Siding Extension	Extend current Irving Depot siding to 10,000 feet on the DART/FWTA-owned portion of the Madill Sub to allow longer trains and support future Cotton Belt and Frisco Corridor passenger rail service. Use as an alternate track off main for crew changes at Irving.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
Dallas	Madill Subdivision CTC from Irving to Carrollton plus speed increases	Install centralized traffic control (CTC) signaling on the DART/FWTA and City of Dallas-owned portion of the Madill Sub between Irving and Carrollton to support future Cotton Belt and Frisco Corridor passenger rail service on existing freight rail line. Project includes turnout improvements on	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		Irving Wye to increase speed to 30 mph.				
Dallas	Madill Subdivision New Gribble Siding	Construct new 10,000 foot siding at Gribble on the Dallas-owned portion of Madill Sub; bridges at Elm Fork and M&M; accommodates longer aggregate trains to support freight and passenger rail expansion.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
Dallas	Madill Subdivision Hebron Siding Extension	Extend current Hebron siding to 10,000 feet on the BNSF-owned portion of Madill Sub for meet and pass conflict resolution to support freight and passenger rail expansion.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
Dallas	Madill Subdivision Double Track/ CTC, Irving to Prosper	Install double track, CTC signaling, and crossovers at 5-6 mile intervals on the BNSF Madill Sub, Irving to Prosper, to	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		support freight and passenger rail expansion.				
Dallas	Madill Subdivision CTC North of Prosper	Upgrade BNSF Madill Subdivision between Prosper, TX and Staley, OK from Track Warrant Control to CTC signaling to support freight and passenger rail expansion.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
Dallas	Madill Subdivision New Sherman Siding	Construct a new 10,000-foot siding at Sherman for meet and pass conflict resolution on BNSF Madill Sub to support freight and passenger rail expansion.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
Dallas	Madill Subdivision New Clark Siding	Construct a new 10,000-foot siding at Clark, OK for meet and pass conflict resolution on BNSF Madill Sub to support freight and passenger rail expansion.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas	Madill Subdivision New Madill Siding	Construct a new 10,000-foot siding at Madill, OK for meet and pass conflict resolution on BNSF Madill Sub to support freight and passenger rail expansion.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
Dallas	BNSF DFW Subdivision Speed Increases	Increase track speed from 25 to 40 mph on BNSF DFW Sub from MP 769.3 to MP 770.4 near Forest Avenue in Dallas through MP 779.5 near Lancaster to support freight and passenger rail expansion.	TBD	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
Dallas	TRE Double Track Union Station	Construct approximately 0.45 miles of new second main track on Trinity Railway Express corridor from North Junction (MP 643.9) to Union Station in Dallas (MP 214.2) to support freight and passenger rail expansion.	$20M	NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study. (An unselected MOVES grant application requested $3.05M for project design)

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas	TRE Double Track from Medical Market Center to Stemmons Freeway Bridge	Construct approximately 1.4 miles of second main track on Trinity Railway Express corridor from East Mockingbird (MP 640.9) near the Medical Market Center to the Stemmons Freeway Bridge (MP 639.5) in Dallas to support freight and passenger rail expansion. Includes Stemmons Freeway bridge replacement.	$8.50M	DART/NCTCOG	Enhance mobility for passenger and freight rail operations	Metroplex Freight Mobility Study
El Paso	UP Valentine Sub Tie Replacement	Replace ties on UP's Valentine Subdivision between Sierra Blanca and Socorro.		UP	Class I Infrastructure Improvement	Funded internally by Class I railroad
Fort Worth	North Texas Intermodal Growth		TBD	BNSF		
Houston	Dayton Wye Connection	Construction of a new wye's track connection between UP Baytown and Houston subdivisions west of Dayton, including a	TBD	BNSF/UP/Houston-Galveston Area Council (HGAC)	Class I Capacity	Related project to Dayton US 90 grade separation

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		new grade separation for US Hwy 90.				
Houston	UP Lufkin Sub Bridge	Construct a new bridge on UP's Lufkin Subdivision near Humble		UP	Class I Capacity/Infrastructure Improvement	Funded internally by Class I railroad
Houston	Houston Sub Relocation	Consolidate and relocate part of the Houston Sub to eliminate highway-rail crossings in downtown Houston.		UP	Reduce public conflict at Grade Crossings	Publicly funded
Houston	Glidden Sub	Double track various sections of Glidden sub where there is single track. Portions of this sub are used by Amtrak, BNSF, CPKC and UP. This could reduce time trains spend in crossings and potential to improve train velocity.		UP	Improved train velocity	
Houston	East Belt and Mykawa Sub Double-Track	Double track East Belt and Mykawa Sub for better train velocity to reduce time trains spend on		UP	Improved train velocity	TxDOT Houston Study

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		highway-rail crossings.				
Tyler	UP Tyler Yard Expansion and Big Sandy Connection	Construct Southwest connection track at Big Sandy between UP's Mineola Sub and Corsicana Sub, and expand Tyler Yard capacity.		UP	Class I Capacity	Funded internally by Class I railroad
Wichita Falls	Valley View Siding	Relocate and extend the Valley View Siding on the BNSF Fort Worth Subdivision to accommodate over 9,000 feet trains	TBD	BNSF	Class I Capacity	
RAIL INTERMODAL/TERMINAL FACILITY PROJECTS						
Fort Worth	BNSF Alliance Facility Expansion	Expand BNSF Railway's Alliance, TX intermodal container transfer facility lift capacity, including acquisition of lift equipment and construction of incremental parking stalls.		BNSF	Class I Capacity	Funded internally by Class I railroad
Houston	CPKC Kendleton Facility Expansion	Expand CPKC's Kendleton, TX intermodal terminal by adding tracks and		CPKC	Class I Capacity	Funded internally by Class I railroad

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		additional parking to support intermodal operations.				
CLASS III RAILROAD IMPROVEMENTS						
Beaumont	Sabine River Bridge Replacement	Replace the flood-damaged bridge crossing the Sabine River on the Timber Rock Railroad.	$1.50M	TxDOT Rail Division	Short Line Infrastructure Improvement	
Corpus Christi	Fulton Lead Rehab	Re-tie and surface Fulton Lead from MP 3 to MP 7.	$583K	TCBR	Short Line Infrastructure Improvement	
Corpus Christi	Turnout Rehab	Rehab the track 668 and 684 turnouts.	$114K	TCBR	Short Line Infrastructure Improvement	
Corpus Christi	Upgrade to railside lubricators	Upgrade the railside lubricators on the TCBR.	$61K	TCBR	Short Line Infrastructure Improvement	
Corpus Christi	Crossing Rehab on the TCBR	Rehab eight highway grade-crossing surfaces in 2025	$771K	TCBR	Short Line Infrastructure Improvement	
Texas City	Port of Texas City Security Station Relocation	Relocate security gate entrance to eliminate an at grade crossing at the neck of the 200 yard to allow better truck and vehicle flow in and out of the Port.		TCTRR	Short Line and Port Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Texas City	Grade separation of FM 197 at FM 519	Grade separation of FM 197 over the TCTRR main line and FM 519 to eliminate grade crossing.		TCTRR	Short Line and Port Infrastructure Improvement	
Texas City	TCTRR Wye connections to UP Galveston Sub	TCTRR Wye connections to UP Galveston Sub for more efficient interchanges.		TCTRR	Short Line and Port Infrastructure Improvement	
Texas City	TCTRR Hyland Bayou rail Bridge replacement	TCTRR Hyland Bayou rail Bridge replacement that will reduce number of piers and improve clearances for the Bayou.		TCTRR	Short Line and Port Infrastructure Improvement	
La Marque	TCTRR La Marque rail complex development	TCTRR La Marque rail complex development of 400 plus acres the is bordered by I-45 and Hwy 3.		TCTRR	Short Line and Port Infrastructure Improvement	
FREIGHT RAIL/PORT PROJECTS (port location in first column)						
Beaumont	Buford Rail Yard Interchange Track	Expansion of on-port rail to accommodate two additional unit trains; includes approximately 16,000 feet of new track and upgrades	$13.14M	2020-2021 Texas Ports Capital Program	Port-Related	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		to 4,200 feet of existing track.				
Brownsville	Multimodal Dock and Rail Spur	Construct 2 miles of new rail on property to link to a new 112,500-square-foot multimodal dock, includes road construction, addition of a rail spur at the Palo Alto yard.	$32.43M	Texas Ports 2017-2018 Capital Program	Port-Related	
Corpus Christi	Al Speight Yard Expansion	Construct two 2,500-foot rail storage tracks with yard improvements at Al Speight Yard.	$1.50M	Texas Ports 2017-2018 Capital Program	Port Related	
Freeport	Parcel 14 Stabilization	Construct a fully operational multimodal facility. Currently 21,000 feet of track under construction at Parcel 4.	$60M (total)	2020-2021 Texas Port Capital Program	Port Related	Cost of project's rail portion TBD
Galveston	Pier 37 Repairs	Repair damaged pier elements of Pier 37 at the Port of Galveston and refurbish the on-dock rail.	$9.20M (total)	2020-2021 Texas Ports Capital Program	Port Related	Cost of project's rail portion TBD

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Port Arthur	Berth 6 Rail Reliever Expansion	On-Dock Rail Berth 6 Expansion – improvements to rail reliever area, including 1,750 feet of track, crossovers, and switches.	$4.29M	Texas Ports 2020-2021 Capital Program	Port Related	Cost of project's rail portion TBD
Victoria	Rail Extension to UP	Victoria County Navigation District South Industrial Site Development Project – Includes proposed rail extension to UP industrial lead.	$16.45M	2020-2021 Texas Port Capital Program	Port Related	Cost of project's rail portion TBD
Texas City	Port of Texas City Security Station Relocation	Relocate security gate entrance to eliminate an at-grade crossing at the neck of the 200 yard to allow better truck and vehicle flow in and out of the Port.		TCTRR	Short Line and Port Infrastructure Improvement	
Texas City	Grade separation of FM 197 at FM 519	Grade separation of FM 197 over the TCTRR main line and FM 519 to eliminate grade crossing.		TCTRR	Short Line and Port Infrastructure Improvement	
Texas City	TCTRR Wye connections to UP Galveston Sub	TCTRR Wye connections to UP Galveston Sub for		TCTRR	Short Line and Port Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		more efficient interchanges.				
Texas City	TCTRR Hyland Bayou rail Bridge replacement	TCTRR Hyland Bayou rail Bridge replacement that will reduce number of piers and improve clearances for the Bayou.		TCTRR	Short Line and Port Infrastructure Improvement	
Texas City	TCTRR La Marque rail complex development	TCTRR La Marque rail complex development of 400 plus acres the is bordered by I-45 and Hwy 3.		TCTRR	Short Line and Port Infrastructure Improvement	
FREIGHT RAIL/BORDER CROSSING PROJECTS						
El Paso	Presidio South Orient Inspection Station	Development and construction of an international customs and border protection facility to inspect trains crossing the international border at Presidio. This facility may be constructed using any available and eligible state or federal fund sources.	$33M	TxDOT Unified Transportation Plan	Border Crossing	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
HIGHWAY-RAIL CROSSING PROJECTS						
Overall	Grade Crossing/ Replanking Program	Highway-rail grade crossing improvement projects programmed in the State's annual Railroad Grade Crossing and Replanking Program	TBD	TxDOT	Road Congestion Reduction/Safety	
Amarillo	N Eastern Avenue Grade Separation	Grade separation of N Eastern Avenue crossing (DOT# 014602G) in Amarillo on the BNSF Hereford Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Amarillo	46th St Grade Separation	Grade Separation of 46th Street crossing (DOT# 014693P) in Amarillo on the BNSF Hereford Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Amarillo	S Georgia St Grade Separation	Grade separation of S Georgia Street crossing (DOT# 014698Y) in Amarillo on the BNSF Hereford Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Austin	Kohlers Grade Separation	Grade-separate Kohlers Crossing and UP Austin Subdivision at-grade	$20M	Capital Area Metropolitan Planning Organization (CAMPO)/TxDOT	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		crossing (DOT# 447648S) in Kyle with a highway overpass				
Austin	Kyle Siding Relocation	Relocate Kyle siding on UP Austin Subdivision after Kohlers Crossing closure	$20M	CAMPO/TxDOT	Road Congestion Reduction/Safety	
Bryan	FM 1361 Grade Separation	Grade separation of FM 1361 (DOT #022870M) in Somerville on the BNSF Galveston Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Dallas	Linfield Road Crossing Closure	Close the at-grade crossing at Linfield Drive in Dallas (DOT# 763440X) and build a pedestrian overpass (UP Ennis Sub).	$7.56M	NCTCOG	Road Congestion Reduction/Safety	
Dallas	Prairie Creek Road Grade Separation and Crossing Closure	Grade separation of North Prairie Creek Road crossing (DOT# 794833R) and crossing closure at Sam Houston Road (DOT# 794832J) in Dallas along UP Mineola Sub.	$6.87M	NCTCOG	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Fort Worth	E Bailey Boswell Road Grade Separation	Grade Separation of E Bailey Boswell Road crossing (DOT# 020542N) in Fort Worth on the Fort Worth Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Fort Worth	N.E. 23rd Street/Decatur Avenue Grade Separation	Grade Separation of N.E. 23rd Street/Decatur Avenue crossing (DOT #020523J) in Fort Worth on the Fort Worth Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Fort Worth	W Bonds Ranch Road Grade Separation	Grade Separation of W Bonds Ranch Road crossing (DOT# 274642V) in Fort Worth on the BNSF Wichita Falls Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Houston	BS 35 (Gordon St.) Grade Separation	Grade Separation of BS 35 (Gordon Street) (DOT# 022645V) in Alvin on the BNSF Galveston Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
Houston	US 90 Grade Separation at Dayton Yard	Eliminate rail-related traffic delays on US 90 by constructing a road bridge to grade-separate the crossing of US 90 and the Baytown Sub	$80M	HGAC	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		tracks in Dayton (DOT# 762790L).				
Houston	Griggs & Long Grade Separation	BNSF Mykawa Subdivision, MP 19.35. Grade separate crossings at Griggs Road and Long Drive (DOT# 023214G and 023215N), and UP Crossings (DOT# 755628E and 755627X).	TBD	HGAC/Gulf Coast Rail District (GCRD)	Road Congestion Reduction/Safety	
Houston	West Belt Grade Separation – York St.	Construct road overpass at York Street and close at-grade crossings at Sampson (DOT# 288229E), McKinney (DOT# 288227R),York (DOT# 288228X), and Milby (DOT# 288226J) streets.	$70M	HGAC/TxDOT/Houston Belt & Terminal Railroad (HBT)	Road Congestion Reduction/Safety	Funded
Houston	West Belt Grade Separation – Commerce/Navigation	Construct road overpass at Navigation Boulevard and Commerce Street, and close at-grade crossing at Hutchins and Commerce	$70M	HGAC/TxDOT/HBT	Road Congestion Reduction/Safety	Funded

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		street intersection (DOT# 288129A).				
Houston	West Belt Grade Separation – Nance St.	Construct grade separation at Nance Street and close at-grade crossing (DOT# 288098D).	$36M	HGAC/TxDOT/HBT	Road Congestion Reduction/Safety	Project is part of the North Houston Highway Improvement Project (NHHP)
Waco	FM 219 Grade Separation	Grade separation of FM 219 (DOT# 023106K) in Clifton on the BNSF Fort Worth Sub.	TBD	BNSF	Road Congestion Reduction/Safety	
OTHER PROJECTS						
Dallas/Fort Worth	TRE - Rehabilitate and Double Track West Fork Trinity River Bridge	Rehabilitate existing Trinity Railway Express bridge across West Fork Trinity River and add a second bridge and approximately 0.7 miles of second main track to support freight and passenger rail expansion (TRE, BNSF, UP).	$3M	NCTCOG	Enhance mobility for passenger and freight rail operations	

Long-Range Freight Railroad Improvement Projects

Texas' Long-Range Rail Investment Program is comprised of projects that have been identified by its railroads and other rail stakeholders to address rail freight needs. These projects, however, are not expected to be implemented within the next 4 years and, in many cases, neither the justification for funding nor the funding itself have been identified.

These projects may be subject to additional feasibility analysis and evaluation of potential public and private benefits. Upon completion of these analyses, the Long-Range Investment Program will be modified over time to consist of projects deemed a high priority for the designated long-range period. Upon the availability of state or federal funding resources, projects selected for implementation could be moved to the Short-Range Rail Investment Program.

The TxDOT Long-Range Program of Freight Rail Projects is shown in Table 5-3. The list is subdivided by:

- Class I Railroad Improvements
- Rail Intermodal/Terminal Facility Projects
- Class III Railroad Improvements
- Freight Rail/Port Projects
- Freight Rail/Border Crossing Projects
- Highway-Rail Crossing Projects
- State-Owned Rail Line Projects
- Other Projects

The table displays the proposed project's TxDOT district location, name and description, estimated cost, project sponsor or source, and project need. A funding source has not been identified for these projects.

Table 5-3: TxDOT Long-Range Program of Rail Freight Projects (2028-2049)

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
CLASS I RAILROAD IMPROVEMENTS						
Overall	286K Upgrades	Track upgrades to accommodate heavier, industry standard freight railcars (286,000 pounds) and enhanced railroad access.			Infrastructure Improvement	
Overall	Capital Projects	Capacity expansion and track maintenance projects on Class I railroad lines in Texas for enhanced railroad access.			Class I Capacity/ Infrastructure Improvement	Funded internally by Class I railroads
Beaumont	Neches River Rail Crossing	Construction of a second bridge for a rail crossing of the Neches River at Beaumont; the existing single track lift bridge is a significant capacity constraint on a major intercontinental rail line between Los Angeles and New Orleans. More than 30	$120M	TxDOT Rail Division	Class I Capacity/ Port Related	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		trains per day cross the existing bridge at reduced speeds and are often delayed.				
Corpus Christi	Sinton Grade Crossing Relief	Create northbound wye connection toward Houston from Gregory to support the Port of Corpus Christi's expansion out of Sinton (UP).	$10M	TxDOT Rail Division/CCMPO	Class I Capacity	
Corpus Christi	Odem Wye connection on northeast quadrant	Streamlines train movements through Odem (UP).	$10M	CCMPO	Class I Capacity	
Dallas	Denton Maintenance-of-Way Rail Relocation	Relocation of the UP Maintenance-of-Way track and stub track in Downtown Denton.	$5M	NCTCOG	Class I Capacity	
Dallas	Ennis Sealed Corridor	Enhance two UP Bridges at Belknap Street (DOT# 765536U) and Baylor Street (DOT# 765535M) and close crossings at Milam Road (DOT# 765528C), Brown Road (DOT# 765531K), and Tyler	$25M	NCTCOG	Class I Capacity/ Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		Street (DOT# 765540J).				
Dallas/Fort Worth	TRE - Double Track rail corridor	Construct a second mainline track on the TRE rail corridor between Union Station in Dallas and Tower 55 in Fort Worth to enhance passenger operations. Project also includes evaluation of operational protocols.	$98.06M	NCTCOG	Enhance mobility for passenger and freight rail operations	Related project in Long Term Passenger Projects table
El Paso	Interstate 10 and Lordsburg Subdivision Rationalization	Future Interstate 10 expansion may require UP right-of-way that requires track relocation (UP).	TBD	TxDOT/El Paso MPO	Class I Capacity	
Houston	Second Main Line Construction (Houston)	Construction of a second mainline track in Houston from the GH&H Junction to Strang on the Port Terminal Railway Association track: This project would eliminate more than 2.5 hours of train delay daily, which is caused by this single-track constraint that connects to double	$130M	HGAC/Port of Houston/Gulf Coast Rail District (GCRD)	Class I Capacity	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		track in both directions. Supports port and chemical industry expansion (BNSF, CPKC, PTRA, and UP).				
Houston	Houston Subdivision Second Main Line Construction	Construction of a second mainline track on the Houston Sub from Dawes to Dayton (this is a BNSF-UP 50/50 Line).	$100M	HGAC/GCRD	Class I Capacity	
Laredo	Eagle Pass Rail Improvements	Potential improvements could include double-tracking segments between BNSF and UP sidings and between UP siding and tracks at Eagle Pass in the vicinity of the bridge to Piedras Negras, an intermodal facility with laydown pad for container movements, and improvements to assist U.S. Customs and Border Protection in conducting border security measures.	TBD	TxDOT Rail Division	Class I Capacity/ Port Needs	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas	Madill Sub Corridor Expansion	Add capacity and increase velocity on the Madill Subdivision	TBD	BNSF	Class I Capacity	
RAIL INTERMODAL/TERMINAL FACILITY PROJECTS						
Brownwood	Brownwood & Camp Bowie Industrial Park Rail-Served Improvement	Add additional tracks at Camp Bowie Industrial Park to provide incremental storage and switching capabilities along with improved rail service (TXR).	$2.39M	Texas Rockcrusher Railway Co. (TXR)	Short Line Infrastructure Improvement/ Intermodal	
Brownwood	TXR Camp Bowie Industrial Park Track Lead Upgrades	Upgrade the main lead serving Camp Bowie Industrial Park to heavier rail to accommodate increased car volume (TXR).	$3.50M	Texas Rockcrusher Railway Co. (TXR)	Short Line Infrastructure Improvement/ Intermodal	
Corpus Christi	Bulk Terminal Crude Oil Transfer Station	Crude-by-rail transfer point consisting of 4,000-foot rail siding, supply pipelines, rail car loading station (Port of Corpus Christi).	$15M	Texas Ports 2017-2018 Capital Program	Port Related	
Dallas	AGCR Transload Facility and Rail Improvements	New Rail Loop, Yard, and Transloading Facility– Colin County, Texas, just east of Farmersville (AGCR).	$10M	Alamo Gulf Coast Railroad (AGCR)	Short Line Infrastructure Improvement/ Intermodal	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
CLASS III RAILROAD IMPROVEMENTS						
Abilene	East Leg of the Wye and Interchange Tracks	Required unit-train interchange between UP and BSR capable of progressive moves to/from the east. Additional interchange is required to handle the demand for increased rail business into the City of Big Spring, Texas-owned industrial park.	$13.90M	Texas Short Line Rail Road Association (TSLRRA)/ Big Spring Rail System (BSR)	Short Line Infrastructure Improvement	
Abilene	Replace Worn 90 lb/yd Rail	Replace inadequate 90 lb/yd rail produced in the 1920s with new 112 lb/yd rail for 1.7 miles of main lead track.	$3.80M	TSLRRA/BSR	Short Line Infrastructure Improvement	
Amarillo	TXNW/BNSF Interchange	Construction of 11,000 feet of track.	$5.60M	TSLRRA/TNW	Class I Capacity/Short Line Infrastructure Improvement	
Amarillo	Priority 2 Bridge Repairs	Repair priority defects on bridges.	$180K	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Amarillo	System Crossing Replacement	Replace priority at grade crossing surfaces.	$220K	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Amarillo	Borger Yard - Remove 75 lb/yd rail	Relay 75 lb/yd rail with rail removed from other locations in yard.	$3.76M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Amarillo	West leg Rail Relay and Panhandle Wye	Relay rail on West Leg and Panhandle Wye.	$4.31M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Amarillo	Mainline Tie and Surface (McBride and Abell Yards included)	Install cross ties and surface railroad.	$5.79M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Amarillo	TXNW Rail Improvements	Rail tie replacement, switch point replacements, install two rail lubricators, and install turnout to connect scale track back to the lead of the east end.	$550K	TXNW	Short Line Infrastructure Improvement	
Amarillo	TXNW Track Rehabilitation	Rehab eight additional classification tracks in Zone 100 to increase railcar classification ability.	$2.50M	TXNW	Short Line Infrastructure Improvement	
Amarillo	TXNW Bridge Repairs	Upgrade bridge planks on 3 bridges along main lead.	$100K		Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Amarillo	TXNW Bridge Upgrade to 286k	Upgrade one bridge to handle 286k (or 286,000 lbs.) carloads.	$120K	TXNW	Short Line Infrastructure Improvement	
Atlanta/ Paris	TNER Sherman Subdivision Bridge Repairs	Repair timber bridges on the Sherman Subdivision; Bridges 145.2, 145.7, 147.3, 675.5 and 695.24.	TBD	TNER	Short Line Infrastructure Improvement	
Atlanta/ Paris	TNER Various Bridge Repairs and Strengthening	Timber bridge repairs and strengthening at various bridges.	$500K	TNER	Short Line Infrastructure Improvement	
Austin	Austin Western Railroad Central Corridor Double Track	Potential improvement that would enhance capacity in a shared-use fright and commuter rail corridor in the Austin area.	$60M	CMTA	Short Line Infrastructure Improvement	
Austin	Austin Western Railroad Bridge Replacement	Upgrade all bridges on the East Subdivision to accommodate 286,000-lb. railcars.	N/A	AWRR	Short Line Infrastructure Improvement	
Beaumont	SNR Tie Program	Tie Replacement (6,000 ties).	$350K	Sabine River & Northern Railroad (SRN)	Short Line Infrastructure Improvement	
Beaumont	SNR Mulford Yard - Switch Replacement	Mulford Yard – switch replacement.	$450K	Sabine River & Northern Railroad (SRN)	Short Line Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Brownwood	286k Upgrade	Upgrade all bridges to 286k capacities.	$3.80M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Brownwood	Priority 2 Bridge Repairs	Repair priority defects on bridges.	$5.67M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Brownwood	Radio Towers	Install communications for operational safety.	$150K	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement/ Safety	
Brownwood	Class 2 Tie and Surface	Upgrade track from FRA Track Class 1 to FRA Track Class 2.	$7.40M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Brownwood	Class 1 Tie and Surface	Upgrade track from FRA Excepted Track to FRA Track Class 1.	$8.19M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Brownwood	TXR Tie Program	Rail tie replacement, infrastructure improvement, and install one rail lubricator.	$290K	Texas Rockcrusher Railway Co. (TXR)	Short Line Infrastructure Improvement	
Brownwood	TXR Track Rehabilitation	Rehab track to handle loaded hazmat cars.	$1.70M	Texas Rockcrusher Railway Co. (TXR)	Short Line Infrastructure Improvement	
Corpus Christi	Fulton Lead Rehab	Relay and resurface five main curves on the Fulton Lead (5,280').	$745K	TCBR	Short Line Infrastructure Improvement	
Corpus Christi	Timber Trestle Rehab	Rehab Timber Trestle Bridge in the South Yard access.	$685K	TCBR	Short Line Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas	McKinney Subdivision Rehabilitation	Raise rail line capacity to handle 286k-capacity cars and increase velocity.	$8.50M	TSLRRA/TNW	Short Line Infrastructure Improvement	
Dallas/Paris	DGNO Garland Subdivision Bridge Repairs	Repair three timber bridges on the Garland Subdivision; Bridges 744.46, 725.74, and 748.17.	TBD	Dallas, Garland, & Northeastern Railroad (DGNO)	Short Line Infrastructure Improvement	
Dallas/Paris	DGNO Various Bridge Repairs and Strengthening	Timber bridge repairs and strengthening at various bridges.	$1.34M	Dallas, Garland, & Northeastern Railroad (DGNO)	Short Line Infrastructure Improvement	
Houston	Provide rail infrastructure to accommodate new traffic and new connection with UP and BNSF	New interchange tracks with two Class I railroads, public rail team, and storage tracks.	$51M	TSLRRA/SJTC	Class I Capacity/Short Line Infrastructure Improvement	
Houston	GVSR Track Surfacing	5 miles of surfacing at the Port in the CHS facility.	$90K	Galveston Railroad (GVSR)	Short Line Infrastructure Improvement	
Laredo	GDR Yard Improvements	Additional classification tracks and lead expansion.	$2.5M	Gardendale Railroad	Short Line Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Paris	KRR Bridge Repairs	Repairs to KRR bridges at MP 576.6 and MP 578.2.	TBD	Kiamichi Railroad (KRR)	Short Line Infrastructure Improvement	
Paris	KRR Paris Subdivision Bridge Repairs	KRR Paris Subdivision Bridge Repairs.	$200K	Kiamichi Railroad (KRR)	Short Line Infrastructure Improvement	
Paris	NETC Track Maintenance	Rebuild the railroad to FRA Class 2 track standards.	TBD	NETC	Short Line Infrastructure Improvement	
Paris	KRR J. Skinner Rail Spur	Put J. Skinner Rail Spur back into service.	TBD	Kiamichi Railroad (KRR)	Short Line Infrastructure Improvement	
Pharr	Priority 2 Repairs Br Hwy 48, 2.7 & 5.90	Repair priority defects on bridges.	$530K	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Pharr	System Crossing Replacement	Replace at grade crossing surface.	$1.13M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Pharr	Unit Train Siding Palo Alto	Construct unit train siding.	$4.30M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Pharr	Upgrade Rail	Upgrade rail and replace turnouts.	$1.24M	TSLRRA/OmniTRAX	Short Line Infrastructure Improvement	
Pharr	Mission Wye Project	Build an east leg connection to the Mission Rail Park. Includes the installation of two	$300M	TSLRRA/Ironhorse	Short Line Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		turnouts, construction of 858 feet of track, and realignment of 1,100 feet of track.				
Pharr	RVSC Customer Track Expansion	Additional customer track for increased business.	$300M	Rio Valley Switching Company (RVSC)	Short Line Infrastructure Improvement	
Pharr	RVSC Tie Program	Tie Program (7,000 Ties).	$0.49M	RVSC	Short Line Infrastructure Improvement	
Yoakum	TXGN Rail Improvements	Rail tie replacement, switch point replacements, switch stand upgrade, install two rail lubricators, and rehabilitate 11 tracks in Zone 100 to increase railcar storage and to enhance the handling of load hazardous material cars.	$5.50M	Texas, Gonzales & Northern Railway (TXGN)	Short Line Infrastructure Improvement	
Yoakum	TXGN Storage Track Surfacing	Ballast and surface 46,123 feet of existing storage yard tracks to facilitate loaded hazmat railcars.	$920K	Texas, Gonzales & Northern Railway (TXGN)	Short Line Infrastructure Improvement	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
FREIGHT RAIL/PORT PROJECTS (port location in first column)						
Beaumont	Low Line Track Grade Separation	Rail-to-rail grade separation on the Low Line Track.	$6M	Port Access Study (Rail)	Port Related	
Beaumont	Reconstruct bridge over Neches River	Reconstruct the railroad lift bridge over the Neches River (RR owned).	TBD	Port Access Study (Rail)	Port Related	
Brownsville	Palo Alto Yard Siding	Brownsville Subdivision – new siding near Olmito, Texas at Palo Alto Yard next to FM 511 (110-car capacity).	$5M	Port Access Study (Rail)	Port Related	
Calhoun	Calhoun Rail Addition	Rail addition – add working and storage tracks to accommodate crude growth.	TBD	Port Access Study (Rail)	Port Related	
Cedar Bayour Navigation District	Grade Separation at FM565/FM 1405	Grade Separate the railroad crossing at the intersection of FM 565/FM 1405	$5.8M	Port Access Study (Rail)	Port Related	
Corpus Christi	Ship Channel Double Track Extension	Ship channel – extend double track from bulk terminal to east end of the inner harbor.	TBD	Port Access Study (Rail)	Port Related	
Corpus Christi	Inland Rail Facility Project	Project would provide additional off-	TBD	Port of Corpus Christi Capital Projects	Port Related	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		waterway rail capacity with connections to UP/BNSF/CPKC and I-69.				
Freeport	Velasco Terminal On-Dock	Velasco – extend rail to provide on-dock rail service to Velasco Terminal, 4 tracks 2,000 feet each.	$12M	Port Access Study (Rail)	Port Related	
Galveston	Slips 37/38 On-Dock Rail	Restore on-dock rail to Slips 37/38.	$3M	Port Access Study (Rail)	Port-Related	
Galveston	Pelican Island Bridge	Pelican Island Bridge – construct new rail bridge to serve future terminal.	$150M	Port Access Study (Rail)	Port Related	
Harlingen	New Rail Spur	Construction of new rail spur.	$2.5M	Port of Harlingen	Port Related	
Houston	New Single Track, At-Grade Crossings, and Signalization (SH 146 and Old SH 146)	SH 146 and Old SH 146 – construct approx. 6,500 linear feet of new single-track rail line from near the intersection of the existing UP right-of-way at Red Bluff Road to the proposed warehouse development. The project includes three at-grade crossings with signalization at	$13.6M	Port of Houston	Port Related	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		SH 146 and Old SH 146, plus modification to switches and turnouts for tying into the existing mainline, and for future expansion. The project may also include approx. 1,200 linear feet of sound wall.				
Houston	Second Track to Future Bayport Container Terminal	Port Terminal Railroad Association (PTRA) Track SH 225 to Red Bluff Road) – construct second rail track allowing PTRA access from SH 225 to Red Bluff Road to connect with crossing at Red Bluff Road, connection to future Bayport Container Terminal.	$78.32M	Port of Houston	Port Related	
Houston	Red Bluff Area Double Track and Run Around Track	SH 146 and Red Bluff Area double track and a run-around track from Red Bluff Road/SH 146 road crossing to future container terminal development.	$10.12M	Port of Houston	Port Related	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Port Arthur	Rail Extension and CPKC Tie-In	Rail extension – construct approx. 4,000 feet of rail that includes tie-in to CPKC and added spur to the existing port track. Project includes track extension and relocated switch, stabilizing 6 acres of laydown yard, which is capped with roller compacted concrete or a flexible base.	$4.5M	Port of Port Arthur	Port Related	
Port Arthur	Ransom Howard Street Grade Separation	Grade separation of Rev. Doctor Ransom Howard Street (DOT# 329559B) in Port Arthur from CPKC main line and yard access.	$15M	TxDOT Rail Division/ CPKC	Class I Capacity/Port Related/Safety	
Victoria	Bloomington (UP) Rail Lift Bridge Replacement	Bloomington (UP) – replace rail lift bridge over the channel at Bloomington (UP/Port).	$30M	Port Access Study (Rail)	Class I Capacity/Port Related	
FREIGHT RAIL/BORDER CROSSING PROJECTS						
Laredo	Second Main Line from Laredo Bridge to Port Laredo	Second main line from Laredo rail bridge to Port Laredo to facilitate additional	$70K	TxDOT Rail Division	Class I Capacity/ Port Needs	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		movements to and from the border (UP).				
HIGHWAY-RAIL CROSSING PROJECTS						
Amarillo	Farmers Avenue Grade Separation	BNSF Hereford Subdivision, MP 558.36. Road crosses four tracks (DOT# 014695D).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Brownwood	System Crossing Replacement	Replaces at grade crossing surface (CTXR).	$460M	TSLRRA/OmniTRAX	Road Congestion Reduction/Safety	
Bryan	Hearne Area Crossing Mitigation	Grade crossing closures or separations to improve vehicular fluidity and improve safety of the Hearne Terminal area (UP).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety/Port Related	
Dallas	Grade Crossing Rationalization	Consider grade separations and closures to mitigate 15 crossings in approximately 2 miles (BNSF).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Dallas	Trinity Mills Grade Separation	Trinity Mills Road grade separations in Carrollton on BNSF Madill Subdivision (DOT# 669376V and 675114C).	TBD	NCTCOG	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas	Ennis Avenue Grade Separation	Grade separation of Ennis Avenue and UP (DOT# 765532S).	$37.97M	NCTCOG	Road Congestion Reduction/Safety	
Fort Worth	Sycamore School Road Grade Separation	BNSF Fort Worth Subdivision, MP 337.6. Sycamore School Road grade separation (DOT# 020469T).	TBD	NCTCOG	Road Congestion Reduction/Safety	
Fort Worth	Blue Mound Road Grade Separation	BNSF Wichita Falls Subdivision, MP 7.6. Blue Mound Road grade separation (DOT# 274640G).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Fort Worth	Hemphill Street Grade Separation	BNSF Fort Worth Subdivision, MP 343.5. Hemphill Street grade separation provides opportunity to extend Tower 55 tracks to Birds sidings (DOT# 020486J).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Houston	FM 565 Grade Separation	Grade separation of FM 565 and UP tracks (DOT# 762810V) in Baytown to support industrial growth in Chambers County.	TBD	Houston-Galveston Advisory Council (HGAC)	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Houston	FM 1405 Grade Separation	Grade separation of FM 1405 and UP tracks (DOT# 762944U) in Baytown to support industrial growth in Chambers County.	TBD	HGAC/GCRD	Road Congestion Reduction/Safety	
Houston	Royal Lakes Blvd Grade Separation	BNSF Galveston Subdivision, MP 55.87. Road crosses main and siding track and experiences regular switching operations to serve Houston Power & Light Plant (DOT# 022673Y).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Houston	Alameda-Genoa Road Grade Separation	BNSF Mykawa Subdivision, MP 14.06. Crosses three tracks at end of BNSF yard (DOT# 023207W).	TBD	HGAC	Road Congestion Reduction/Safety	
Houston	West Belt Grade Separation – Lyons Ave.	Construct grade separation at Lyons Avenue (DOT# 288095H) and close three at-grade crossings on West Street (DOT# 758284D and 748688W).	$36M	HGAC/TxDOT/HBT	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Laredo	Laredo Grade Separations	Relieve congestion in downtown Laredo caused by the 14 at-grade crossings along the existing Texas-Mexico approach to the existing Laredo rail bridge (CPKC and UP).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Lubbock	US 70/US 84 Grade Separation	BNSF Hereford Subdivision, MP 757.27. Construct grade crossing at the BNSF Transcon main lines from Slaton Subdivision. Approximately 60% of project is in Texas and 40% in New Mexico (DOT# 014787R).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Paris	Grade Crossing Rationalization	Consider grade separations and closures to mitigate 18 crossings in approximately 5 miles (BNSF).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
Pharr	Harlingen Rail Improvements Project	Project will relocate and realign 1.7 miles of track and construct one new crossing at Commerce Street to eliminate seven	$6.9M	Cameron County Regional Mobility Authority	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		existing grade crossings in the City of Harlingen, Texas.				
San Antonio	Grade Separation	Grade separate Sunset Road (DOT#432501X), Jones Maltsberger Road (DOT# 432502E), and Basse Road (DOT# 432503L) on the UP Austin Subdivision Main Track #1 in San Antonio.	TBD	Alamo Area Metropolitan Planning Organization (AAMPO)	Road Congestion Reduction/Safety	
San Antonio	Grade Separation	Grade separate Rittiman Road (DOT#764362W) and Walzem Road (DOT# 764980W) on the UP Glidden Sub to create a 10,000-foot siding just east of Kirby yard.	$70M	AAMPO	Road Congestion Reduction/Safety	The design is progressing for Rittiman Rd.
San Antonio	Grade Separation	Grade separate Binz-Engleman Road (DOT# 415621U) on the UP Austin Sub.	TBD	AAMPO	Road Congestion Reduction/Safety	
San Antonio	Grade Separation	Grade separate East Houston Street (DOT #415625W) on the UP Austin Sub.	TBD	AAMPO	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
San Antonio	Grade Separation	Grade separate Frio City Road/South Zarzamora Street intersection and at-grade crossing of UP Laredo Sub (DOT# 432573B) in a manner that allows for the closure of three Tier 1's in San Antonio between Tower 105 and SoSan yard: Harriman Place (DOT# 432572U), Drake Avenue (DOT# 432568E), and Cumberland Road (DOT# 432567X).	TBD	AAMPO	Road Congestion Reduction/Safety	
San Antonio	Grade Separation	Grade separate Broadway Street (DOT#848306A) and Wetmore Road on the UP Austin Subdivision in San Antonio and extend existing siding to improve downtown vehicular mobility near Tower 105.	$22M	AAMPO	Road Congestion Reduction/Safety	
Wichita Falls	US 283 Grade Separation	BNSF Red River Valley Subdivision, MP 163.35. Road crosses	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		three tracks (DOT# 274661A).				
Wichita Falls	7th Street Grade Separation	BNSF Wichita Falls Subdivision, MP 114.1. Road crosses nine tracks in middle of BNSF's rail yard (DOT# 274983N).	TBD	TxDOT Rail Division	Road Congestion Reduction/Safety	
STATE-OWNED RAIL LINE PROJECTS						
Atlanta/Paris	Rehabilitate NETEX Rail Line, Greenville to Mount Pleasant	Rehabilitate the Northeast Texas Rural Rail Transportation District (NETEX) rail line from Greenville to Mount Pleasant (66 miles). TxDOT owns the 31 miles of the NETEX right-of-way and has a security interest in the infrastructure from a Grant Funding Agreement in 1996. Track speeds on the NETEX line are limited to 10 mph due to defective cross ties and bridge deficiencies. The rail line must be rehabilitated to continue providing service to existing	$30M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		customers and attract new business to the line and the region. TxDOT would seek additional ownership in the line and infrastructure as a condition to rehabilitating the line.				
Dallas/Fort Worth	Reconstruct NETEX Rail Corridor, Greenville to Wylie	Reconstruct an abandoned rail corridor owned by the NETEX rail line from Greenville to Wylie (23.2 miles) to provide additional rail capacity into the Dallas-Fort Worth Metroplex. TxDOT funded the purchase of this right-of-way by NETEX.	$12M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	
El Paso	SORR Fastlane Rehab	Rehabilitation of the South Orient Rail Line (SORR) (FASTLANE Grant).	$7M	TxDOT Rail Division	State of Good Repair/ Short Line Infrastructure	
El Paso	SORR 25-mph Rehab	Rehabilitation of SORR MP 957 - 1029 to 25-mph track speeds in support of international traffic	$7M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		through Presidio (FY19).				
El Paso	SORR Alpine Interchange Rehab	Rehabilitate line between Belding and Alpine to open the interchange with UP at Alpine. Rehabilitation is essential to enable shipments to/from the border at Presidio and to provide interchange capability with UP and foster competition for SORR freight between BNSF and UP. It would also allow crude oil shipments west to California across UP's Sunset Route.	$20M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	
El Paso	Rehabilitate SORR Line, Paisano Jct. to Presidio	Rehabilitate the SORR line between Paisano Junction and Presidio in support of the reconstruction of the international rail bridge. TxDOT received a $7 million FRA grant for the rehabilitation of the line within these limits. Most of those	$4.7M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		funds are being used for other critical bridge repairs. An additional $3 million is needed to address drainage and some tie replacements.				
El Paso/Odessa	Rehabilitate SORR Line, Sulphur Junction to Fort Stockton	Rehabilitate the SORR line between Sulphur Junction and Fort Stockton (13.6 miles). The rail was manufactured in 1912, is substandard for today's loadings, and is expected to become inoperable due to infrastructure deficiencies within 5 years. The existing 70-pound rail will be replaced with 115-pound continuously welded rail.	$12.8M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	
Odessa	SORR Infrastructure Railbed Rehabilitation	Infrastructure Railbed Rehab to Replace Jointed Rail, Replace Ties, Ballast, Reconstruct Grade.	$3.42M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	
Odessa	Rehabilitate SORR Line, Crockett/Pecos	Rehabilitate the SORR line between Crockett/Pecos	$7M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
	County Lines to Sulphur Junction	County lines and Sulphur Junction (22.1 miles). The rail is in generally good condition, but needs major tie replacements with grade crossing reconstructions during tie replacements.				
Odessa	Rehabilitate SORR Line, Fort Stockton to Belding	Rehabilitate the SORR line between Fort Stockton and Belding (10 miles). The rail line was manufactured in 1912 and is substandard for today's loadings. This section of the rail line must be rehabilitated to continue to provide safe and efficient service to the customer facilities that are served within the project limits.	$8M	TxDOT Unified Transportation Plan	State of Good Repair/ Short Line Infrastructure	
OTHER PROJECTS						

Short-Range Program of Rail Passenger Projects

The short-range program consists of projects that could be implemented within 4 years (2024-2027). The TxDOT Short-Range Program of Rail Passenger Projects is shown in Table 5-4. The individual service proposals, their sponsors, descriptions, and a summary of the transportation need that the project fills are shown in the table.

Table 5-4:TxDOT Short-Range Program of Rail Passenger Projects in Texas (2024-2028)

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Overall (Fort Worth/Wichita Falls)	Heartland Flyer Funding	Continued funding with ODOT of Amtrak state-supported Heartland Flyer service (4 years, at $2.5 million per year)	$10.00M	TxDOT	Maintain Amtrak state- supported passenger service	State support required for Amtrak routes of 750 or less, under PRIIA
Overall (Fort Worth/Wichita Falls)	Heartland Flyer Funding	Supplemental funding with ODOT of Amtrak state-supported Heartland Flyer service (4 years, at $1 million per year)	$4.00M	TxDOT	Maintain Amtrak state- supported passenger service	Supplemental funding for inflationary escalation of annual $2.5M payment, plus capital equipment cost for locomotive replacement
Private/ Federal	Texas Central Railway / Amtrak Texas High-Speed Rail Corridor	Plan, construct, and implement high-speed (200-mph) passenger rail service on a new, dedicated corridor between Dallas and Houston	$71.00M	Amtrak/ Texas Central Partners	Enhance regional mobility	Short-term funding represents $63.9M Corridor ID grant from FRA to Amtrak plus matching funds for planning/ development work

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Overall (Houston/ Yoakum/ San Antonio)	Texas Triangle: Houston to San Antonio Corridor	Federal Corridor ID Program planning and development activities to study potential intercity passenger rail service between Houston and San Antonio	TBD	TxDOT	Enhance regional mobility	FRA Corridor ID Program grant funding
Overall (Dallas/Fort Worth/ Bryan/Houston)	Texas Triangle: Dallas-Fort Worth to Houston Intercity Passenger Rail Corridor	Federal Corridor ID Program planning and development activities to study potential intercity passenger rail service between Dallas/Fort Worth and Houston	TBD	TxDOT	Enhance regional mobility	FRA Corridor ID Program grant funding
Overall (Dallas/ Fort Worth/ Waco/ Austin/San Antonio)	Texas Triangle: Dallas-Fort Worth to San Antonio Corridor	Federal Corridor ID Program planning and development activities to study potential intercity passenger rail service between Dallas/Fort Worth and Houston	TBD	TxDOT	Enhance regional mobility	FRA Corridor ID Program grant funding
Overall (Beaumont/ Houston/ Yoakum/San Antonio/Laredo/Odessa/El Paso)	Daily Sunset Limited Service	Federal Corridor ID Program planning and development activities to study potential daily	TBD	Amtrak	Enhance regional mobility	FRA Corridor ID Program grant funding

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		operation of Amtrak Sunset Limited route				
Overall (Fort Worth/ Dallas/ Tyler/ Atlanta)	I-20 Corridor Intercity Passenger Rail Service	Federal Corridor ID Program planning and development activities to study potential intercity passenger rail service between Dallas/Fort Worth and Meridian, MS	TBD	Southern Rail Commission	Enhance regional mobility	FRA Corridor ID Program grant funding
Dallas/Fort Worth	Fort Worth to Houston High-Speed Rail Corridor	Federal Corridor ID Program planning and development activities to study potential high-speed rail service between Dallas and Fort Worth	TBD	NCTCOG	Enhance regional mobility	FRA Corridor ID Program grant funding
Dallas/Fort Worth	Dallas-Fort Worth High-Speed Transportation Corridor	Plan, construct, and implement high-speed passenger rail service on a new, dedicated corridor between Dallas and Fort Worth	$20.00M	NCTCOG	Enhance regional mobility	FTA, FRA, and NCTCOG partnership to help fund NEPA planning and engineering
San Antonio	San Antonio Amtrak Improvements	Construct capital improvements to address current safety and efficiency problems associated with moving Amtrak	$5.00M	TxDOT, Amtrak, UP	Enhance safety and reliability on shared passenger/ freight rail corridor	

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		trains into the San Antonio Station				
Overall (Fort Worth/Wichita Falls)	Heartland Flyer Corridor: Safety, Efficiency, Resiliency	Construct siding relocations, occupied crossing mitigation, and resiliency improvements on Heartland Flyer route	$74.24M	TxDOT, ODOT,	Enhance safety, reliability, and resiliency on shared passenger/ freight rail corridor	
Overall (Fort Worth/ Wichita Falls/San Antonio/ El Paso/ Houston)	Amtrak Texas and Oklahoma Rail Improvements	Capital projects to improve rail infrastructure, stations, and mechanical facilities along the routes of the Texas Eagle, Sunset Limited, and Heartland Flyer	$25.00M	Amtrak	Enhance safety, reliability, and mobility for passenger operations	Amtrak FY 2025 Annual Request to Congress; amount will fund pre-construction activities and fully fund some capital projects
Overall	Amtrak Station Improvements	ADA station improvements at 10 Amtrak stations	$33.08M	Amtrak	Enhance safety and mobility for passenger operations	Amtrak FY24-29 Five Year Plan
Austin	Red Line Double Tracking	Construct segments of second main track and additional passing sidings to support future 15-minute frequencies	TBD	CMTA	Enhance mobility, reliability, and resiliency for passenger operations	Project Connect

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		on CapMetro Rail Red Line				
Austin	Red Line Quiet Zones	Upgrade grade crossing installations on CapMetro Rail Red Line to enable establishment of quiet zones	TBD	CMTA	Enhance safety and reliability	Project Connect
Austin	Red Line Broadmoor Station	Relocate CapMetro Rail Red Line Kramer Station to the new Broadmoor Station site	$35.60M	CMTA	Enhance mobility and ridership	Additional funding provided by private site developer
Austin	Red Line Platform Extensions	Extend platforms at CapMetro Rail Red Line stations to accommodate longer 2-car trains	TBD	CMTA	Enhance mobility and capacity for passenger operations	Project Connect, CAMPO 2045 Transp. Plan
Dallas	DART Silver Line (Cotton Belt Corridor)	Construct and implement regional commuter rail operation on 26 miles of the Cotton Belt Corridor between DFW Airport and Shiloh Road in Plano	$2,098.00M	DART	Enhance passenger mobility	
Dallas	A-Train Positive Train Control	Enhance DCTA A-train's track and positive train control software to increase	$5.00M	DCTA	Enhance safety, reliability, and mobility for	FRA CRISI Grant award

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
	Enhancements, Phase 2	train speeds, reduce travel time, and reduce headways			passenger operations	
Dallas	A-Train Enhancement Study	Assess feasibility of an A-train extension south to Carrollton, a new Corinth station, a north extension, and other improvements	TBD	DCTA	Enhance safety, reliability, and mobility for passenger operations	Dallas
Dallas	DART High Capacity Corridor Planning	Assess feasibility (including alignment and mode type) of high capacity corridors	$366.00M	DART	Enhance regional mobility, ridership, and connectivity	DART 2045 TSP
Dallas	NT Moves	Capital improvements to add track capacity and replace aging bridges (Medical Market Center to Stemmons Freeway double track, Handley Ederville Road to Precinct Line Road double track), and improve TRE corridor operations using Clear Path technology	$55.00M	NCTCOG / DART	Enhance safety, reliability, and mobility for passenger and freight operations	Partially funded with $25M FY20 BUILD grant from USDOT
Dallas/ Fort Worth	Trinity Railway Express	Investments to replace or refurbish	$5.00M	DART	Enhance safety and reliability on	DART 2024-2028 capital

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
	PTC/ITS Equipment Replacement and Refurbishment	equipment for the Positive Train Control (PTC) safety system and other Intelligent Transportation Systems (ITS) infrastructure that supports passenger and freight operations on the 34-mile Trinity Railway Express corridor between Dallas and Fort Worth			shared passenger/ freight rail corridor	investment program
Dallas/ Fort Worth	Trinity Railway Express Locomotive Purchase	Acquire five new Siemens-built Charger locomotives for Trinity Railway Express	$66.20	DART	Enhance mobility and reliability for passenger rail operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	Trinity Railway Express Additional Locomotive Purchase Option	Acquire up to six additional Charger locomotives for Trinity Railway Express as add-ons to 5-locomotive base order with Siemens	TBD	DART	Enhance reliability and state of good repair for passenger operations	
Dallas/ Fort Worth	Trinity Railway Express Bi-	Perform mid-life overhauls of 10 Trinity Railway	$14.70M	DART	Enhance reliability and state of good repair for	DART 2024-2028 capital

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
	Level Midlife Overhauls	Express bi-level cars (coaches and cab cars)			passenger operations	investment program
Dallas/ Fort Worth	Trinity Railway Express Coach to Cab Conversion	Convert a bi-level coach to a cab car with train controls inside an operator compartment at the end of the car to improve TRE fleet utilization and availability	$2.00M	DART	Enhance reliability and state of good repair for passenger operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	Trinity Railway Express Vehicle Replacement Program	Replace Trinity Railway Express commuter rail locomotives, coaches, and cab cars that have exceeded their 30-year useful life	$236.10M	DART	Enhance reliability and state of good repair for passenger operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	State of Good Repair Reserves for DFW ROW and Signal Maintenance	Investments in track and signal system repairs and upgrades to maintain state of good repair on the 34-mile Trinity Railway Express corridor between Dallas and Fort Worth	$53.10M	DART	Enhance reliability and state of good repair for passenger operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	State of Good Repair Reserves	Replace bridges that are nearing the end	$33.60M	DART	Enhance reliability and state of good	DART 2024-2028 capital

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
	for Madill Sub Bridges Replacement	of their useful life on the DART-owned Madill Subdivision			repair for passenger operations	investment program
Dallas/ Fort Worth	Trinity Railway Express Sunday Service Implementation	Establish Sunday service on the Trinity Railway Express commuter corridor between Dallas and Fort Worth	TBD	DART	Enhance regional mobility and ridership	DART 2045 Transit System Plan
Fort Worth	TEXRail Medical District Extension	Extend TEXRail commuter rail service 2.1 miles southwest from downtown Fort Worth to Medical District	$179.00M	FWTA	Enhance regional mobility, ridership, and connectivity	Initially planned as part of original corridor; NCTCOG Mobility 2045 Update

Source: TxDOT

Long-Range Program of Passenger Rail Projects

Chapter 3 describes several potential intercity passenger and commuter rail initiatives being advanced by the private sector, by Amtrak, or by the public sector at the local and regional level. The TxDOT Long-Range Program of Rail Passenger Projects is shown in Table 5-5. The individual service proposals, their sponsors, descriptions, and a summary of the transportation need that the project fills are shown in the table. A funding source has not been identified for some of these projects. State funding is unavailable; TxDOT intends to serve as a facilitator for private and local public investment.

Table 5-5: TxDOT Long-Range Program of Rail Passenger Projects in Texas (2028-2044

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Overall (Fort Worth/Wichita Falls)	Heartland Flyer Funding	Continued funding with ODOT of Amtrak state-supported Heartland Flyer service (16 years, at $2.5 million per year)	$40M	TxDOT	Maintain Amtrak state- supported passenger service	State support required for Amtrak routes of 750 or less, under PRIIA
Private/ Federal	Texas Central Railway / Amtrak Texas High-Speed Rail Corridor	Plan, construct, and implement high-speed (200-mph) passenger rail service on a new, dedicated corridor between Dallas and Houston	$18,000M to $50,000M	Amtrak/ Texas Central Partners	Enhance regional mobility	Public-private partnership with private financing and federal financing via Amtrak
Fort Worth/ Dallas	Dallas-Fort Worth High-Speed Transportation Corridor	Plan, construct, and implement high-speed passenger rail service on a new, dedicated corridor between Dallas and Fort Worth	$TBD	NCTCOG	Enhance regional mobility	
Overall	Fort Worth to Laredo High-Speed Rail	implement high-speed passenger rail service on a new, dedicated corridor between Fort Worth and Laredo	TBD	NCTCOG / six regional MPOs	Enhance regional mobility	
Austin	Green Line Austin to Colony Park	Construct track and signal improvements and acquire rail	$370M	CMTA	Enhance regional mobility	Project Connect

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		vehicles to establish service on the proposed CapMetro Rail Green Line between Austin and Colony Park				
Austin	Green Line Extension Colony Park to Elgin	Construct track and signal improvements and acquire rail vehicles to establish service on the proposed CapMetro Rail Green Line extension between Colony Park and Elgin	$238M	CMTA	Enhance regional mobility	Project Connect
Austin	Red Line Crestview Connection	Construct grade separation of CapMetro Rail Red Line and N. Lamar Blvd. to facilitate future on-street light rail extension to Crestview with a multimodal transfer station at intersection	TBD	CMTA	Enhance safety, ridership, and mobility	Project Connect
Austin	Red Line Platform Extensions	Extend platforms at CapMetro Rail Red Line stations to accommodate longer 2-car trains	TBD	CMTA	Enhance mobility and capacity for passenger operations	CAMPO 2045 Transp. Plan

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Austin	Double Track Red Line	Construct a second main track for the entire length of the 32-mile CapMetro Rail Red Line corridor	TBD	CMTA	Enhance mobility, reliability, and state of good repair for passenger operations	Project Connect, CAMPO 2045 Transp. Plan
Austin	Red Line New Vehicle Acquisition	Acquire 4 new DMU rail vehicles for increased Red Line service	TBD	CMTA	Enhance mobility, reliability, and state of good repair for passenger operations	Project Connect, CAMPO 2045 Transp. Plan
Austin	CapMetro Rail Heavy Maintenance Facility	Construct a new CapMetro Rail heavy maintenance facility in Leander	$40M	CMTA	Enhance mobility, reliability, and state of good repair for passenger operations	Project Connect, CAMPO 2045 Transp. Plan
Austin	CapMetro Rail Replacement Red Line Vehicles	Acquire new DMU rail vehicles to replace existing CapMetro Rail Red Line fleet at the end of their useful lives	$105.60M	CMTA	Enhance reliability and state of good repair for passenger operations	
Dallas	Cotton Belt Corridor Double and Triple Track (Silver Line, TEXRail)	Construct a second mainline track and segments of third main track on the Cotton Belt Corridor to allow for additional train frequencies and improved operations on TEXRail and the Silver Line	TBD	DART	Enhance mobility and reliability for passenger and freight operations	DART 2045 Transit System Plan

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas/ Fort Worth	Silver Line/TEXRail through service implementation	Construct improvements and upgrades to the Cotton Belt Corridor track, signals, and stations to establish Silver Line one-seat ride service from Plano to Fort Worth	TBD	Dart / FWTA	Enhance regional mobility and ridership	DART 2045 Transit System Plan
Dallas	A-Train South Extension	Extend A-train corridor approximately 2miles south from Trinity Mills to downtown Carrollton and establish connections with the DART Silver Line and planned Frisco Corridor commuter line	$125.00M	DCTA / NCTCOG	Enhance regional mobility, ridership, and connectivity	DCTA 2018 Strategic Plan, NCTCOG Mobility 2045 Update
Dallas	A-Train Corinth Station	Construct a new A-train station near North Central Texas College in Corinth	TBD	DCTA	Enhance regional mobility and ridership	DCTA 2018 Strategic Plan
Dallas	A-Train North Extension	Extend A-train corridor north from Denton to Pilot Point	$331.60M	DCTA	Enhance regional mobility and ridership	DCTA 2018 Strategic Plan
Dallas	Frisco Line Regional Rail Corridor	Establish regional commuter rail service on the Frisco Line between Downtown	$2,900.00M	DCTA/ NCTCOG/ RRCS	Enhance regional mobility, ridership, and connectivity	NCTCOG Mobility 2045 Update/DCTA 2018

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		Irving and Celina (37 miles)				Strategic Plan,
Dallas	McKinney Line Regional Rail Corridor Study	Future commuter rail corridor study for the McKinney Line Regional Rail Corridor linking Irving, Carrollton, Plano, and McKinney North (Prosper)	TBD	DART/ RRCS	Connect Collin County communities to the regional network and major employment centers	NCTCOG Mobility 2045 Update/DART 2045 TSP
Dallas	Silver Line East Extension Regional Rail Corridor Study	Future commuter rail corridor study for an extension of the Silver Line (Cotton Belt Corridor) east from Plano (Shiloh Road) to Wylie	TBD	DART/ NCTCOG	Connect communities' northeast of Dallas to the regional network	NCTCOG Mobility 2045 Update/DART 2045 TSP
Dallas	Scyene Line High-Capacity Corridor Study	Study to analyze future service options for an East Scyene LRT extension or Skyene Line regional rail service	TBD	DART/ NCTCOG	Connect eastern communities to the regional network and major employment centers	NCTCOG Mobility 2045 Update/DART 2045 TSP
Dallas	Green Line Southeast Extension High-Capacity Corridor Study	Study to analyze future service options for a Green Line East Extension (6 miles) between Buckner Boulevard and South Belt Line Road	TBD	DART/ NCTCOG	Connect communities south of Dallas and the Inland Port area to the regional network	NCTCOG Mobility 2045 Update/DART 2045 TSP

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas	Waxahachie Line Regional Rail Corridor Study	Future commuter rail corridor study for the Waxahachie Line Regional Rail Corridor (31 miles), linking Dallas, Waxahachie, and Wilmer	TBD	DART/RRCS	Connect communities south of Dallas and the Inland Port area to the regional network	NCTCOG Mobility 2045 Update/DART 2045 TSP
Dallas	Midlothian Line High-Capacity Corridor Study	Study to analyze future service options for the Midlothian Line Corridor (18 miles), linking Westmoreland and Midlothian	TBD	DART/ NCTCOG	Connect Southwest communities to the regional network and major employment centers	NCTCOG Mobility 2045 Update/DART 2045 TSP
Dallas	McKinney Line Regional Rail Corridor	Establish regional commuter rail service on the McKinney Line between Plano (Parker Road Sta.) and McKinney (18 miles)	$1,817.0M	RRCS	Enhance regional mobility	NCTCOG Mobility 2045 Update
Dallas	Silver Line East Extension	Establish regional commuter rail service on the Silver Line (Cotton Belt Corridor) East extension between Shiloh and Wylie (9 miles)	$908.00M	DART/ NCTCOG	Enhance regional mobility	NCTCOG Mobility 2045 Update
Dallas	Scyene Line Regional Rail Corridor	Establish regional commuter rail service on the Scyene Line between Lawnview and Masters (4 miles)	$404.00M	NCTCOG	Enhance regional mobility	NCTCOG Mobility 2045 Update

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas	Scyene Line East Extension Regional Rail Corridor	Establish regional commuter rail service on the Scyene Line East Extension between Masters and Lawson Road (8 miles)	$807.00M	NCTCOG	Enhance regional mobility	NCTCOG Mobility 2045 Update
Dallas	Green Line – Southeast Extension Regional Rail Corridor	Establish regional commuter rail service on the Green Line Southeast Extension between Buckner Boulevard and South Belt Line Road (6 miles)	$606.0M	NCTCOG	Enhance regional mobility	NCTCOG Mobility 2045 Update
Dallas	Waxahachie Line Regional Rail Corridor	Establish regional commuter rail service on the Waxahachie Line between Dallas and Waxahachie (31 miles)	$2,8270M	RRCS	Enhance regional mobility	NCTCOG Mobility 2045 Update
Dallas	Midlothian Line Regional Rail Corridor	Establish regional commuter rail service on the Midlothian Line between Westmoreland and Midlothian (18 miles)	$1,817.0M	RRCS	Enhance regional mobility	NCTCOG Mobility 2045 Update
Fort Worth/ Dallas	Mansfield Line Regional Rail Corridor	Establish regional commuter rail service on the Mansfield Line between Fort Worth	$2,736.0M	NCTCOG	Enhance regional mobility	NCTCOG Mobility 2045 Update

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
		and Midlothian (30 miles)				
Fort Worth	Cleburne Line Regional Rail Corridor	Establish commuter rail service on the Cleburne Line between Fort Worth and Cleburne (30 miles)	$1,730.0M	NCTCOG	Enhance regional mobility	NCTCOG Mobility 2045 Update
Dallas/ Fort Worth	Trinity Railway Express PTC/ITS Equipment Replacement and Refurbishment	Investments to replace or refurbish equipment for the Positive Train Control (PTC) safety system and other Intelligent Transportation Systems (ITS) infrastructure that supports passenger and freight operations on the 34-mile Trinity Railway Express corridor between Dallas and Fort Worth	$50.50M	DART	Enhance safety and reliability on shared passenger/ freight rail corridor	DART 2024-2028 capital investment program
Dallas/ Fort Worth	Trinity Railway Express Bi-Level Midlife Overhauls	Perform mid-life overhauls of 10 Trinity Railway Express bi-level cars (coaches and cab cars)	$14.70M	DART	Enhance reliability and state of good repair for passenger operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	Trinity Railway Express Vehicle	Replace Trinity Railway Express commuter rail locomotives, coaches,	$295.14M	DART	Enhance reliability and state of good repair for	DART 2023 Business Plan and 20-Year

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
	Replacement Program	and cab cars that have exceeded their 30-year useful life			passenger operations	Financial Forecast
Dallas/ Fort Worth	State of Good Repair Reserves for DFW ROW and Signal Maintenance	Investments in track and signal system repairs and upgrades to maintain state of good repair on the 34-mile Trinity Railway Express corridor between Dallas and Fort Worth	$211.30M	DART	Enhance reliability and state of good repair for passenger operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	State of Good Repair Reserves for Madill Sub ROW and Signal Maintenance	Investments in track and signal system repairs and upgrades to maintain state of good repair on the DART-owned Madill Subdivision between Irving and Carrollton	$33.90M	DART	Enhance reliability and state of good repair for passenger operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	State of Good Repair Reserves for Madill Sub Bridges Replacement	Replace bridges that are nearing the end of their useful life on the DART-owned Madill Subdivision	TBD	DART	Enhance reliability and state of good repair for passenger operations	DART 2024-2028 capital investment program
Dallas/ Fort Worth	Trinity Railway Express Sunday Service Implementation	Establish Sunday service on the Trinity Railway Express commuter corridor between Dallas and Fort Worth	TBD	DART	Enhance regional mobility and ridership	DART 2045 Transit System Plan

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Dallas/ Fort Worth	Trinity Railway Express Fleet Operating Facility Expansion	Increase the fleet size and expand storage and maintenance facilities to enhance service frequencies on the Trinity Railway Express corridor	TBD	DART/ FWTA	Enhance mobility, ridership, and state of good repair for passenger operations	DART 2045 Transit System Plan
Dallas/ Fort Worth	Trinity Railway Express Corridor Double and Triple Track	Construct a second main track and segments of triple track along the Trinity Railway Express corridor to establish a fully double-tracked and partially triple-tracked commuter rail corridor between Dallas and Fort Worth to allow for additional train frequencies and improved passenger and freight operations	TBD	DART/ FWTA	Enhance mobility and reliability for passenger and freight operations	DART 2045 Transit System Plan
Fort Worth	TEXRail Southwest Extension to Summer Creek/Sycamore School Rd.	Extend TEXRail commuter service southwest from Fort Worth to Summer Creek/Sycamore School Rd. in southwest Fort Worth near McPherson	$980.00M	FWTA	Enhance regional mobility, ridership, and connectivity	Initially planned as part of original corridor; NCTCOG Mobility 2045 Update

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Fort Worth	TEXRail Corridor Double Track	Construct a second mainline track and segments of third main track on the TEXRail line (Cotton Belt Corridor) to allow for additional train frequencies and improved operations	TBD	FWTA	Enhance mobility and reliability for passenger and freight operations	DART 2045 Transit System Plan
Houston	US 90A Commuter Line	Establish commuter rail service on the US 90A Commuter Line extending 27.4 miles between Houston METRO's Fannin South Park and Ride and Rosenberg	$8,441.00M	HGAC/ GCRD	Enhance regional mobility and connectivity	H-GAC 2045 RTP
Houston	US 290 Commuter Line	Establish commuter rail service on the US 290 Commuter Line extending 44 miles between Houston METRO's Northwest Transit Center and Hempstead	$4,412.0M	HGAC/ GCRD	Enhance regional mobility and connectivity	H-GAC 2045 RTP
Houston	Galveston SH3 Commuter Rail	Establish commuter rail service on a 50-mile corridor along State Highway 3 between Houston and Galveston	TBD	HGAC/ GCRD	Enhance regional mobility	H-GAC RTP 2040

TxDOT District	Project Name	Project Description	Estimated Cost ($millions)	Source/Sponsor	Project Need	Notes
Houston	Westpark Commuter Line	Establish rail service on the Westpark Commuter Line extending 22 miles between Houston METRO's Gessner Park and Ride and Fulshear	$2,659.0M	HGAC	Enhance regional mobility	H-GAC 2045 RTP
Pharr	Hidalgo County Commuter Rail	Establish commuter rail service in Hidalgo and Cameron counties connecting Mission, McAllen, Pharr, and Mercedes.	TBD	HCRD	Enhance regional mobility	

Texas Department of Transportation

2024 Texas Rail Plan

Chapter 6

Coordination and Review

February 2025

Contents

Chapter 6: Introduction 2

Approach to Public and Agency Participation 3

Stakeholder Outreach 3

Texas Rail Plan Website 6

Social Media Promotion 8

State Coordination 8

Coordination of Rail Plan with Neighboring States 8

Coordination of State Rail Planning with Other Transportation Planning Programs 9

Stakeholder Participation During Preparation and Review 9

Issues Raised During the Preparation of the Rail Plan 10

Key Themes from Stakeholder Discussions 10

Public Comments Received 11

Including Recommendations in the Rail Plan 11

Figures

Figure 6-1: TxDOT Hosted a Series of In-Person Workshops. 4

Figure 6-2: Stakeholder Workshop Participation 5

Figure 6-3: Texas Rail Plan Website 7

Figure 6-4: Example Social Media Post 8

Figure 6-5: Stakeholder Engagement During the Texas Rail Plan Update 10

Tables

Table 6-1: Input Received on Rail 10

Chapter 6: Introduction

This chapter describes how the Texas Department of Transportation (TxDOT) involved stakeholders and the public in the coordination necessary to develop the 2024 Texas Rail Plan.

TxDOT actively engaged stakeholders at the earliest stages of the project. Stakeholders included individuals, organizations, industries, and groups either affected or with an interest in particular projects or actions. For the rail plan, stakeholders involved were shippers, modal operators, transportation academics, logistics organizations and service providers, current and potential rail passenger users, various industrial and manufacturing sectors, state, regional, county and city government agencies, elected and appointed public officials, economic development and business interests, special interest and advocacy groups, and the general public. Stakeholder involvement included participation in freight and passenger rail planning activities; identifying the freight and passenger rail priorities and goals for Texas; identifying issues, needs and potential investments for rail; and helping to define policies and performance metrics for rail to ensure improved freight and passenger rail service into the future.

TxDOT facilitated specific, targeted outreach efforts including participation from key freight and passenger rail stakeholder groups. Stakeholders received email invitations, updates, and reminders that corresponded with each outreach activity. Those who participated in the shipper interviews received notification through phone calls and emails.

Approach to Public and Agency Participation

This section describes the approach to public and agency participation in the development of the rail plan including public noticing, opportunities for public and agency participation, and how comments were collected.

Stakeholder Outreach

Stakeholder engagement activities were important in order for the project team to understand current rail operations throughout Texas and to gain a better understanding of the needs and opportunities that affect various parties who all have a vested interest in rail transportation.

Outreach efforts included facilitating interviews, hosting stakeholder workshops, hosting a virtual public meeting, and participating in partnering meetings, such as the Texas Freight Advisory Committee and MPO meetings.

Facilitated Interviews

In the initial phases of the project, the project team conducted virtual, individualized interviews with primary railroad industry stakeholders, as identified through coordination with TxDOT.

The project team asked each interviewee a series of questions related to:

- Perceived status of rail infrastructure in Texas generally, to qualitatively assess conditions of rail and rail funding in Texas, while highlighting particular areas of concern on a corridor, project, or policy level.
- Perceived strengths of TxDOT's rail investment programs, in addition to perceived limiting factors, to enable evaluation of TxDOT's current practices and policies for rail investment.
- Past successes and challenges experienced in implementing investments for rail improvement projects, both for state-owned and privately held assets, to illustrate through example how policies and projects intersect through established project delivery practices.
- Concerns or considerations associated with the state and federal policies affecting rail development options within Texas to verify the documents address policy shortcomings or provide appropriate policy clarifications.

The intent of the stakeholder interview process was to gather information that accurately described the economic function of rail operations in the state and gain insight into the challenges facing the rail industry in Texas from both regulatory and economic perspectives. The project team documented stakeholder interviews by producing meeting notes for internal use. The complete list of interview questions are located in Appendix E, Facilitated Interviews.

Railroad Representatives and Shippers

All railroads currently operating in Texas were invited to participate in the initial stakeholder outreach phase. Project team staff identified Class I, short line, and freight rail shippers to be interviewed. Railroad representatives including local management, public projects staff, and government affairs personnel were interviewed to gather insight and perspective on the state of freight rail service and current railroad needs and opportunities in Texas.

Members of the project team arranged and conducted the interviews. Each potential interviewee received an initial contact email or phone call with details and background about the Texas Rail Plan, an explanation of how the interview process would be conducted, and an invitation to participate.

A total of 22 different railroads participated in the confidential interviews during May through September 2024, which lasted approximately 30 to 60 minutes each.

Stakeholder Workshops

Stakeholder Workshops – Round 1

After the facilitated interview phase, TxDOT held several stakeholder workshops throughout the state to support the development of the rail plan. The two in-person meetings took place in Dallas and San Antonio. The third meeting was planned to take place in Houston; however, due to Hurricane Burl making landfall in Texas at the same time, the meeting format was switched to virtual, in order to accommodate area stakeholders. Attendees at these meetings included railroad representatives, rail shippers, economic development agencies, local government staff, elected officials, special interest and advocacy groups, and other key stakeholders. All of the meetings were promoted via email outreach, news release, direct phone calls, and social media posts.

At each of the stakeholder meetings, TxDOT and the project team presented information about the purpose of rail planning, the FRA requirements for state rail plans, and an overview of the history and existing conditions of the rail network in Texas. TxDOT also facilitated group discussions to help further identify current needs and opportunities related to rail.

Figure 6-1: TxDOT Hosted a Series of In-Person Workshops.

Meetings and communications were designed to facilitate participation and foster meaningful engagement, specifically for rail-related topics pertinent to freight and passenger rail. Individuals who attended an in-person meeting were able to provide feedback on large maps (Figure 6-1) and an online survey platform, as well as ask questions throughout the meeting. Individuals who attended the virtual meeting were able to collaborate via online tools such as Mural and Mentimeter, as well as ask questions throughout the meeting.

The stakeholder workshop outreach promotion, presentation, meeting notes, and comments are located in Appendix E, Stakeholder Workshops – Round 1.

Stakeholder Workshops – Round 2

TxDOT held a second round of online stakeholder workshops to review the freight and passenger rail project lists and findings of the draft Texas Rail Plan. The draft project lists were uploaded to the rail plan website for stakeholders to review and provide comments. Attendees at these meetings included railroad representatives, rail shippers, economic

development agencies, local government staff, elected officials, special interest and advocacy groups, and other key stakeholders. All of the meetings were promoted via email outreach, direct phone calls, and social media posts.

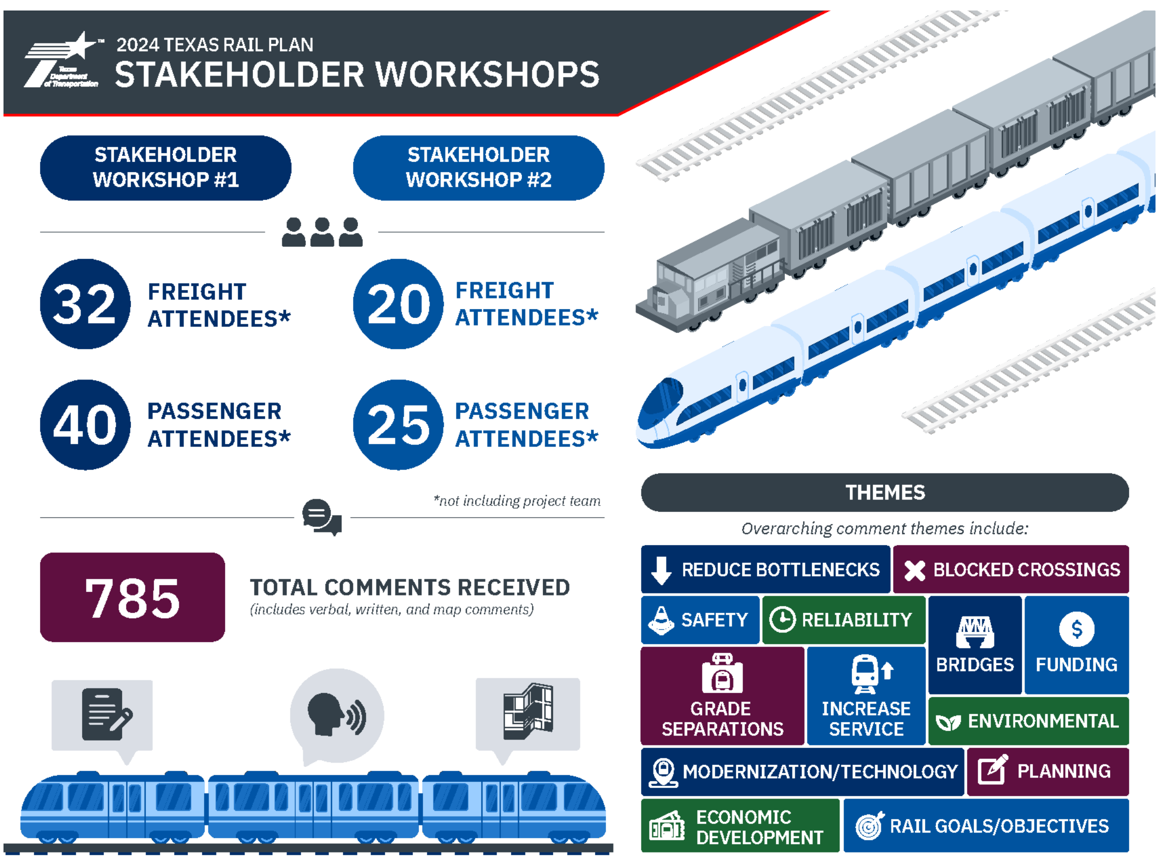
At each of the stakeholder meetings, TxDOT and the project team presented information about the current and future needs and opportunities of rail in Texas, the planned or proposed freight and passenger rail projects in Texas, and the plan's goals and objectives. The use of an interactive project map that included all of the freight and passenger projects allowed participants a quick way to filter the project list by sponsor, review details, and share specific comments on the projects (https://hdr.maps.arcgis.com/apps/dashboards/575a344570574c67bf04b63e0b54f4f8). The purpose of the map review was to identify which projects could benefit from future public sector funding. Participants were able to share their feedback on the map throughout the entirety of the comment period, from Dec. 10 until Dec. 30, 2024.

Meetings and communications were designed to facilitate participation and foster meaningful engagement. TxDOT sought input on the current short-range and long-range projects that were included, discussed any projects that might be missing, and other factors that should be considered for incorporation into the Texas Rail Plan. The meeting attendees also discussed the goals and objectives and shared their comments and questions.

The stakeholder workshop outreach promotion, presentation, meeting notes, and comments are located in Appendix E, Stakeholder Workshops – Round 2.

The overview of participation for both of these workshops is shown in Figure 6-2.

Figure 6-2: Stakeholder Workshop Participation



Virtual Public Meeting

A virtual public meeting was held to provide the general public and individuals who were unable to attend a stakeholder workshop an opportunity to learn more about the rail plan process. TxDOT hosted the online public meeting on Aug. 19, 2024. The link to the meeting was available on TxDOT's website at https://www.txdot.gov/projects/hearings-meetings/rail/2024/2024-texas-rail-plan-081924.html.

The online meeting included an overview of the rail plan, goals and objectives, schedule, and proposed passenger and freight rail project maps. In addition, the project team placed Texas's current rail needs and opportunities in the context of the multiple targeted federal funding opportunities available as a result of the Bipartisan Infrastructure Law, over the years 2022 through 2026. The team emphasized that the update to the rail plan is a tool that TxDOT and other stakeholders can use to leverage upcoming funding opportunities throughout the next five years.

A recording of the virtual meeting is available for viewing, and includes all information shared during the public meeting, such as the PowerPoint presentation and comment form, as well as an online comment form to solicit input.

A series of social media posts, email updates, and a news release promoting the online public meeting were published to alert stakeholders and the general public about the meeting and the opportunity to provide comments. The online meeting outreach promotion, presentation, and attendee list is located in Appendix E, Public Meeting. TxDOT received several comments by email and online comment forms, which are located in Appendix E, Comments Received.

Partnering Meetings

Along with other outreach efforts, TxDOT participated in multiple partnering meetings with the Texas Freight Advisory Committee and Metropolitan Planning Organizations in effort to keep them apprised on the status of the plan. During these meetings, TxDOT provided updates on the goals of the rail plan, the timing for future outreach opportunities, what feedback stakeholders have shared thus far, and how this feedback has or will be incorporated into the plan.

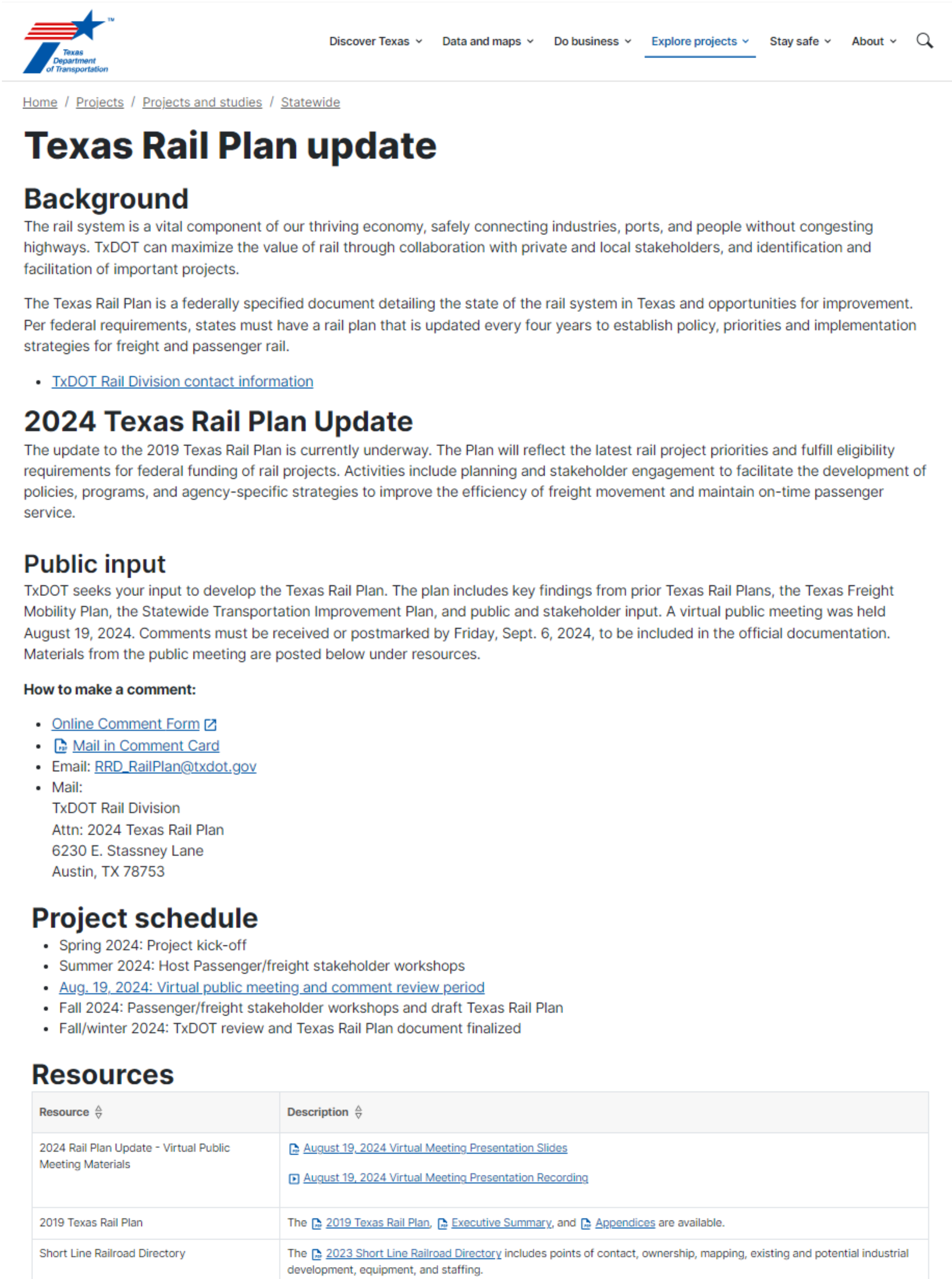
The partnering meeting presentation is located in Appendix E, Partnering Meetings.

Texas Rail Plan Website

A project webpage (https://www.txdot.gov/projects/projects-studies/statewide/texas-rail-plan-update.html) shown in Figure 6-3 was used to serve as an online information center for all potential stakeholders by providing ongoing information about the Texas Rail Plan update process and progress.

The webpage was created and hosted by TxDOT and included information about the plan, the timeline for development, events, existing documents and resources, contact information, and a comment form.

Figure 6-3: Texas Rail Plan Website



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Texas Rail Plan update

Background

The rail system is a vital component of our thriving economy, safely connecting industries, ports, and people without congesting highways. TxDOT can maximize the value of rail through collaboration with private and local stakeholders, and identification and facilitation of important projects.

The Texas Rail Plan is a federally specified document detailing the state of the rail system in Texas and opportunities for improvement. Per federal requirements, states must have a rail plan that is updated every four years to establish policy, priorities and implementation strategies for freight and passenger rail.

- TxDOT Rail Division contact information

2024 Texas Rail Plan Update

The update to the 2019 Texas Rail Plan is currently underway. The Plan will reflect the latest rail project priorities and fulfill eligibility requirements for federal funding of rail projects. Activities include planning and stakeholder engagement to facilitate the development of policies, programs, and agency-specific strategies to improve the efficiency of freight movement and maintain on-time passenger service.

Public input

TxDOT seeks your input to develop the Texas Rail Plan. The plan includes key findings from prior Texas Rail Plans, the Texas Freight Mobility Plan, the Statewide Transportation Improvement Plan, and public and stakeholder input. A virtual public meeting was held August 19, 2024. Comments must be received or postmarked by Friday, Sept. 6, 2024, to be included in the official documentation. Materials from the public meeting are posted below under resources.

How to make a comment:

- Online Comment Form
- Mail in Comment Card
- Email: RRD_RailPlan@txdot.gov
- Mail:
  TxDOT Rail Division
  Attn: 2024 Texas Rail Plan
  6230 E. Stassney Lane
  Austin, TX 78753

Project schedule

- Spring 2024: Project kick-off
- Summer 2024: Host Passenger/freight stakeholder workshops
- Aug. 19, 2024: Virtual public meeting and comment review period
- Fall 2024: Passenger/freight stakeholder workshops and draft Texas Rail Plan
- Fall/winter 2024: TxDOT review and Texas Rail Plan document finalized

Resources

Resource	Description
2024 Rail Plan Update - Virtual Public Meeting Materials	August 19, 2024 Virtual Meeting Presentation Slides August 19, 2024 Virtual Meeting Presentation Recording
2019 Texas Rail Plan	The 2019 Texas Rail Plan, Executive Summary, and Appendices are available.
Short Line Railroad Directory	The 2023 Short Line Railroad Directory includes points of contact, ownership, mapping, existing and potential industrial development, equipment, and staffing.

Social Media Promotion

Stakeholder engagement opportunities, including in-person stakeholder workshops and the online public meeting, were promoted via TxDOT's official social media accounts including Facebook and X.

An example of a Facebook post is shown in Figure 6-4. The complete list of social media posts is included in Appendix E, Social Media Content.

Figure 6-4: Example Social Media Post

State Coordination

Coordination of Rail Plan with Neighboring States

TxDOT regularly interacts with neighboring states through involvement in national and regional transportation organizations, as well as to address specific transportation service facility issues, and planning initiatives. TxDOT representatives routinely analyze neighboring states' rail plans to find commonality among goals, objectives, and current or planned improvement projects and/or investments.

Representatives from neighboring states' transportation planning organizations had the opportunity to review the draft Texas Rail Plan and participate in stakeholder meetings and the online public meeting.

Coordination of State Rail Planning with Other Transportation Planning Programs

The state coordinates rail planning with other transportation planning programs and activities of the state and metropolitan areas. The TxDOT Transportation Planning and Programming Division administers the state's rail programs and serves as TxDOT's railroad liaison. The rail plan informs and is informed by the state's other transportation planning documents, including the Statewide Long-Range Transportation Plan, the Statewide Transportation Improvement Programs, and the Texas Freight Plan. Effective and continued coordination between these offices is necessary to maximize efficiency and eliminate redundancies.

TxDOT will consider all relevant and applicable federal laws, regulations, policies, and executive orders related to the management of state rail programs and implementation of rail projects within the state.

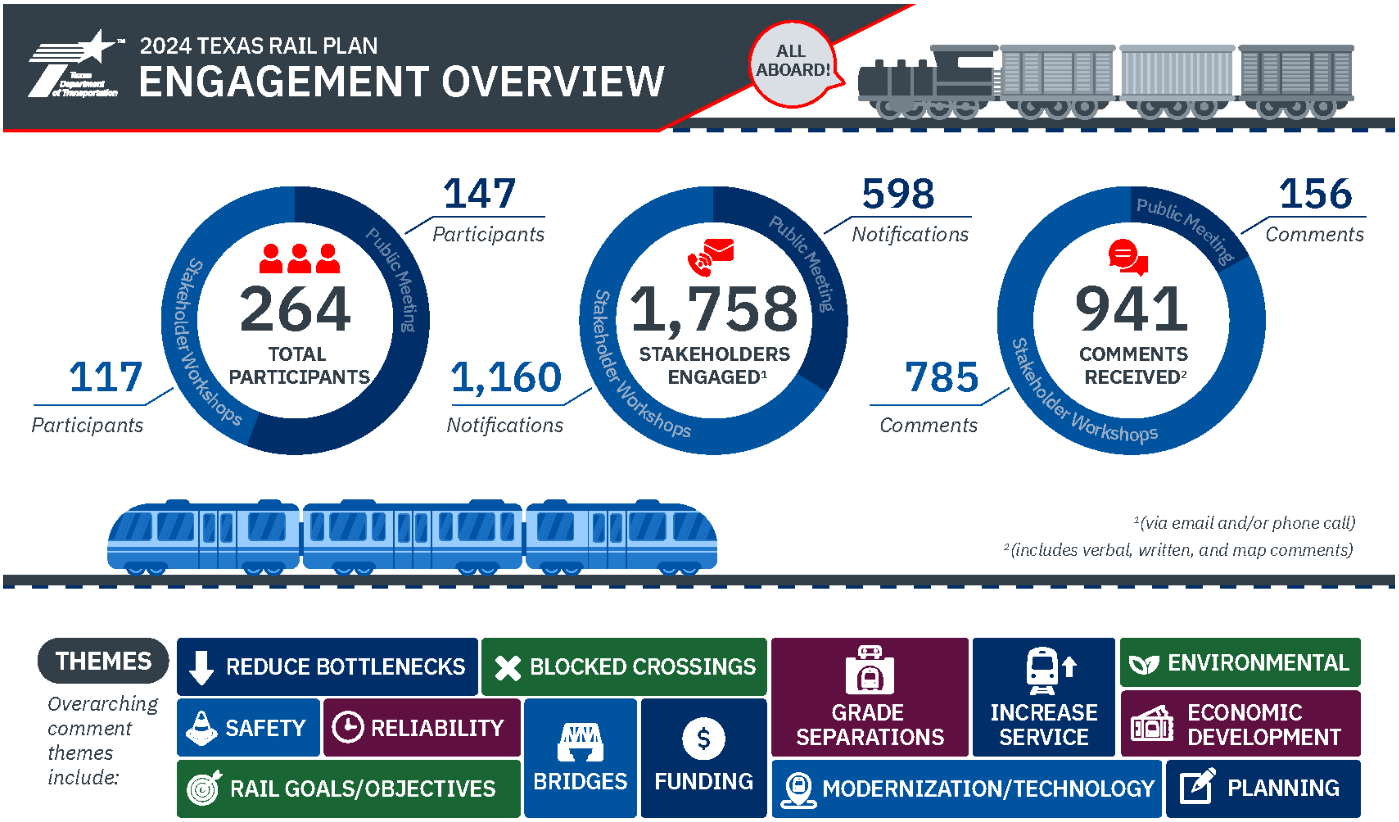
Stakeholder Participation During Preparation and Review

Railroads, rail shippers, public entities within the state, segments of local government, and other interested parties were involved in the preparation and review of the rail plan.

Key stakeholders and industry representatives that were necessary to include in the early information-gathering phase of this project were identified and contacted. Later, representatives of the railroads operating in the state, along with staff from federal and state agencies, local and regional governments, regional railroad authorities, and general public groups (including advocacy organizations interested in passenger rail), were invited to participate in future phases of the engagement process. Meetings and communications were designed to facilitate participation and foster meaningful engagement, as seen in Figure 6-5.

TxDOT continued to solicit input throughout the plan development process via the project website and through ongoing coordination with contacts who participated in earlier phases of engagement. Additionally, the online comment form remained open and accessible to allow the continual receipt of comments.

Figure 6-5: Stakeholder Engagement During the Texas Rail Plan Update



Issues Raised During the Preparation of the Rail Plan

Information gathered from stakeholder engagement was used to develop several rail plan components including the plan's vision, goals, objectives and proposed projects. Comments were received through question-and-answer sessions, online comment forms, and through interactive maps throughout the course of the plan's development.

Key Themes from Stakeholder Discussions

As TxDOT updated their long-range plan, as well as many other transportation plans over the past year, and hosted several industry-specific rail workshops, several key points were made regarding rail improvements for incorporation into the 2024 Texas Rail Plan. Input received was categorized by theme and shown in Table 6-1.

Table 6-1: Input Received on Rail

Theme	Common Topics
Safety	• Safe routes to schools • Resiliency and emergency response • Priority of grade separations, especially in urban areas
Funding	• Leverage federal funding opportunities • Dedicated state stream for improvements • Infrastructure investment needed

Theme	Common Topics
Reliability	• Address congestion • Consider length of time routes take • End-to-end/last-mile connections
Bottlenecks	• Congestion around the state including the Metroplex, Uvalde, Houston, Beaumont, and Eagle Pass • Bridge condition and low clearances • Blocked crossings
Modernization/Technology	• Performance standards • Technology to identify potential bottlenecks • Alternative fuel sources
Economic Development	• New industrial centers • Cross-border trade • Development of supporting uses (i.e., air carriers, amenities)
Expanded Connectivity	• Interstate and intercity passenger service ○ Support for multiple routes including Dallas to Austin, Austin to San Antonio, San Antonio to Houston, and Dallas to Houston ○ Connections to border cities ○ Increased service for routes and frequencies, both on existing and new routes ○ Interstate connection from Dallas to Oklahoma to Louisiana along I-20 and I-10 to New Mexico ○ Opportunity for intra-state trips with few stops and higher speeds • Population centers exist for increased routes • Coordination between service types so riders can make transfers (i.e. airport, transit hubs)

Public Comments Received

TxDOT received several comments by email and online comment forms during the course of the plan's development. Comments were received from members of the public and representatives from railroads, ports, and transportation planning organizations, among others. The comments received during the first and second stakeholder meetings, as well as the public meeting, appear in Appendix E, Comments Received.

Including Recommendations in the Rail Plan

Recommendations made by participants such as railroads, agencies, authorities, and municipalities within the state were appropriately considered and presented in the Texas Rail Plan. Specifically, current and future projects identified by stakeholders formed the basis for the state's updated project inventory presented in Chapter 5.

The rail planning process provided a venue for these potential projects to be identified and documented. The project concepts that are included in the rail plan may potentially be eligible for future funding opportunities. Including a project in the Texas Rail Plan is an eligibility requirement for some federal funding programs and serves as an important indicator of project readiness.

2024 Texas Rail Plan: Appendix A

Profile of the Texas Railroad Network

Contents

2024 Texas Rail Plan: Appendix A 1

Profile of the Texas Railroad Network 1

Introduction 3

Class I Railroads in Texas 7

Class II Railroads in Texas 64

Class III Railroads in Texas 64

Major Railroad Yards and Facilities in Texas 77

Figures

Figure A-1:BNSF Subdivisions in Texas 10

Figure A-2: CPKC Network in Texas 26

Figure A-3: UP Service Units in Texas 34

Figure A-4: Class III Railroads in Texas 65

Tables

Table A-1: Texas Route Mileage by Railroad and Non-Operating Railroad Owner 5

Table A-2: Descriptions of BNSF Subdivisions – Kansas Division 11

Table A-3: Descriptions of BNSF Subdivisions – Red River Division 13

Table A-4: Description of CPKC Subdivisions – Midwest Division 27

Table A-5: Description of CPKC Subdivisions – Southwest Division 29

Table A-6: Descriptions of UP Subdivisions – Heartland Service Unit 35

Table A-7: Descriptions UP Subdivisions – Houston Service Unit 36

Table A-8: Description of UP Subdivisions – Gulf Coast Service Unit 46

Table A-9: Descriptions of UP Subdivisions – Mid-America Service Unit 48

Table A-10: Description of UP Subdivisions – South Texas Service Unit 50

Table A-11: Description of UP Subdivisions – Texoma Service Unit 56

Table A-12: Class I Railroads Major Freight Rail Yards and Facilities in Texas 78

Table A-13: Texas Seaports with Connections to the Texas Rail Network 80

Table A-14: Active Texas Land Ports of Entry with Rail Connections 82

Introduction

The primary purpose of this appendix is to provide an inventory and description of the assets of the Texas railroad network for railroads of all classes and for non-operating railroad owners that includes background and details about the physical and operating characteristics of each railroad and rail line segment in the state. This data is used to understand potential freight capacity, service velocity, and versatility, and to ascertain potentially what types of business and levels of service can be accommodated over each line segment. Furthermore, this inventory will be used as a tool later to identify and prioritize potential rail infrastructure improvements that eliminate challenges and operating and safety conflicts, expand capacity, promote rail access, enhance connectivity between railroads and between railroads and other transportation modes, and encourage growth in the railroad transportation sector that is consistent with the needs of Texans, businesses, industries, and the vision of the Texas State Rail Plan.

Included in the inventory for each railroad in the state, to the extent known during development of the Texas State Rail Plan, are key physical and operating characteristics for each Texas railroad subdivision or railroad line segment. This information, identified in the list below, was collected through coordination with Texas' railroads in 2024, and via analysis of TxDOT data (including rail maps generated by TxDOT), Class I Railroad Annual Report R-1s (submitted by the state's Class I railroads to the federal Surface Transportation Board annually), railroad timetables, and other publicly available data.

- **Railroad Subdivision and Division**
- **Owner of the Line**
- **Operator of the Line**
- **FRA Track Class** – Identifies the likely applicable Federal Railroad Administration (FRA) Class of Track designation on the main track(s) for each subdivision.
- **Track Configuration** – Identifies the number of main tracks and the presence of sidings for train meet-pass events on each subdivision, within Texas.
- **Maximum Authorized Speed for Freight Trains** – Identifies the maximum speed freight trains can travel over each subdivision. Note that speeds may be further restricted owing to track geometry, bridge restrictions, limited sight distances, challenges of rail operations in urban and rail terminal areas, and other safety and operating considerations not identified in this inventory. Maximum authorized speeds for freight trains may also be lower than the maximum authorized speed by the FRA's Class of Track regulations.
- **Maximum Authorized Speed for Passenger Trains** – Identifies the maximum speed passenger trains can travel over each subdivision; note that speeds may be further restricted owing to track geometry, bridge restrictions, limited sight distances, challenges of rail operations in urban and rail terminal areas, and other safety and operating considerations not identified in this inventory. Speeds are identified only for railroad subdivisions presently hosting Amtrak intercity and long-distance passenger trains or commuter trains in Texas, and on other segments as designated by railroads in Texas.
- **Wayside Signals** – Indicates the presence of a wayside signal system on each subdivision (see operational authority below for wayside signal types), which is used to convey operating authority to trains and equipment and / or show occupation of main track(s) by trains and equipment.
- **Method of Operation** – Identifies generally the railroad operating system or practice employed on each segment, to the extent known, including the presence of:
  - **Centralized Traffic Control (CTC)** – A train control system whereby a train dispatcher provides operational authority to trains remotely via a wayside signal system and radio communication.

- **Automatic Train Control (ATC)** – A train control system integrated with a cab signaling system that applies train speed control. An alarm in the train locomotive notifies the engineer when the train has exceeded the maximum allowable speed for a given portion of track, and if the engineer fails to reduce speed or apply the air brake system, a penalty brake application is made automatically by the ATC system. ATC typically exists as an overlay to a CTC system, which provides operational authority.
- **Automatic Block Signals** – A wayside signal system that indicates block occupancy and minimizes the likelihood of collisions between trains. ABS is not controlled by a train dispatcher, but a train's entry to into a segment of ABS may be controlled by a train dispatcher. Typically requires that operational authority be provided as an overlay through a track warrant or track authority issued by a train dispatcher via radio communication.
- **Track Warrant Control** – System of operational authority issued to trains remotely by a train dispatcher via radio communication.
- **Restricted Limits (RL), Restricted Speed (RS), GCOR Rule 6.28, Yard Limits (YL)**; designations may vary by railroad – Typically slow speed operations (not more than 20 mph, but may be much slower, depending upon designation, sight distance, congestion, and operating conditions) within and at the approach to railroad yards and on industrial leads and other trackage that does not require operational authority from a train dispatcher. Trains operating within these limits typically coordinate operations with the train dispatcher and other trains operating within the limits via radio communication.

- **Maximum Allowable Gross Weight** – Identifies loaded railcar weight limitations, as dictated by the likely condition of mainline bridges and track.
- **Clearances** – Identifies the known vertical clearance potential for accommodating specific types of railcar equipment. Reporting by railroad varies, and could include Association of American Railroads (AAR) railcar plate height, dimensions above top of rail in feet and inches, or railcar equipment type. Some equipment types identified include:
  - **Trailer on Flat Car (TOFC)** – Railroad flat car on which a truck semi-trailer is transported; known as a piggyback.
  - **Double-Stack Car/Container on Flat Car (COFC)** – Intermodal railcar that typically accommodates shipping containers of up to 53 feet in length stacked one or two high.
  - **Tri-Level/Hi-Trilevel** – Railcar equipped with racks accommodating two or three decks of automobiles or light trucks.
  - **AutoMax** – Automobile rack railcar with adjustable deck heights for accommodating bi-level or tri-level configurations.
- **Current Traffic Density (2017)** – Identifies the rail traffic density by subdivision in annual Gross Ton-Miles (GTM) in millions. MGT includes the number of trailing tons in a train behind the locomotives (including railcars and lading, railroad company service equipment, and cabooses) times the distance moved in road freight trains. Traffic density for tenant railroads with trackage rights over subdivisions of an owning (or host) railroad are identified, only if known.
- **Average Number of Trains per Day (2017)** – Identifies a range of likely average daily train volumes for each subdivision.
- **Industrial Leads** - Identifies railroad-designated industrial leads (or spurs, as designated by some railroads) which are used to access rail customers off the subdivision mainline and extend the reach of rail service in Texas; mileage of industrial leads (and spurs) is not included in route-mile calculations for the state owing to their designation.

Also identified in the context of each railroad's network in Texas is the existence of trackage rights which provide authority for one railroad (a tenant) to operate over the line of another railroad (host); haulage rights which is an arrangement whereby one railroad markets service over a route owned by another, but does not operate its own trains over the host railroad; and connections (or interchanges) between railroads where railcars are exchanged. Major railroad yards/terminals and rail facilities as well as rail-port connections in the state are also identified.

Table A-1 identifies the Texas operating and non-operating railroad owners that own a total of approximately 10,000 route miles in the state, and which are detailed in this Appendix. The table also identifies by entity – railroad class (if applicable), standard alpha carrier code (an industry standard two- to four-letter abbreviation), total miles of railroad owned and operated in Texas (including lines leased, operated under contract, trackage rights, and haulage rights, as applicable). Note that miles leased and/or operated under contract, miles operated under trackage rights, and miles operated under haulage rights are included in the total miles operated figures, allowing total miles operated to exceed total miles owned. Industrial railroads and private track ownership provide transportation service at industrial installations in Texas, but, due to their classification, the mileage of privately owned industrial track is not included in calculations of the state's rail network. Similarly, the industrial track (including designated industrial leads and spurs) of Class I, II, and III rail carriers is also not included in the route-mile calculations.

Table A-1: Texas Route Mileage by Railroad and Non-Operating Railroad Owner

Railroad	Standard Carrier Alpha Code	Railroad Class	Total Miles Owned	Miles Owned and Operated	Miles Leased / Operated Under Contract	Miles Operated Under Trackage Rights	Total Miles Operated
BNSF Railway	BNSF	Class I	2,595	2,595	10	2,783	5,388
Canadian Pacific Kansas City	CPKC	Class I	590	590	0	349	939
Union Pacific Railroad	UP	Class I	5,189	5,189	0	1,309	6,498
Subtotal (Class I)			**8,374**	**8,374**	**10**	**4,441**	**12,825**
Alamo Gulf Coast Railroad	AGCR	Class III	7	7	0	0	7
Alamo North Texas Railroad	ANTR	Class III	0	0	0	0	0
Angelina & Neches River Railroad	ANR	Class III	28	28	0	3.5	31.50
Austin Western Railroad	AWRR	Class III	0	0	181	0	181
Big Spring Rail Systems	BSR	Class III	0	0	3	0	3
Blacklands Railroad	BLR	Class III	Does not include 29 miles of trackage from NETEX (see below).	0	65	8	73
Border Pacific Railroad	BOP	Class III	0	0	32	0	32
Brownsville & Rio Grande International Railroad	BRG	Class III	0	0	45	5	50

Railroad	Standard Carrier Alpha Code	Railroad Class	Total Miles Owned	Miles Owned and Operated	Miles Leased / Operated Under Contract	Miles Operated Under Trackage Rights	Total Miles Operated
Dallas, Garland & Northeastern Railroad	DGNO	Class III	32	32	131	0	163
Fort Worth & Western Railroad	FWWR	Class III	276	276	0	0	276
Galveston Railroad	GVSR	Class III	0	0	39	0	39
Gardendale Railroad	GRD	Class III	0	0	33	0	33
Georgetown Railroad	GRR	Class III	30	30	0	0	30
Gulf Coast Switching	GCS	Class III	0	0	0	0	0
Henderson Overton Branch	HOB	Class III	0	0	14	0	14
Hondo Railway	HRR	Class III	3	3	2	0	5
Kiamichi Railroad	KRR	Class III	24	6	0	0	30
LaSalle Railway	LSRY	Class III	4	4	0	0	4
Lubbock & Western Railway	LBWR	Class III	10	10	134	0	144
Moscow, Camden & San Augustine Railroad	MCSA	Class III	7	7	0	0	7
Orange Port Terminal Railway	OPT	Class III	2	2	0	0	2
Panhandle Northern Railroad	PNR	Class III	31	31	0	0	31
Pecos Valley Southern Railway	PVS	Class III	23	23	0	0	23
Plainsman Switching Company	PSC	Class III	18	18	0	0	18
Point Comfort & Northern Railway	PCN	Class III	19	19	0	0	19
Port Terminal Railroad Association	PTRA	Class III	154	154	0	0	154
Rio Valley Switching	RVSC	Class III	0	0	70	0	70
R.J. Corman – Texas Lines	RJCD	Class III	13	13	0	0	13
Sabine River & Northern Railroad	SRN	Class III	40	40	0	0	40
San Antonio Central Railroad	SAC	Class III	Port San Antonio Yard Track Only	0	0	0	8
San Jacinto Transportation Company	SJTC	Class III	0	0	0	0	6
South Plains Lamesa Railroad	SLAL	Class III	5	5	0	0	5
Southern Switching Company	SSC	Class III	5	5	4	0	9
Southwest Gulf Railroad	SGRR	Class III	9	9	0	0	9
Temple & Central Texas Railway	TC	Class III	0	0	10	0	10

Railroad	Standard Carrier Alpha Code	Railroad Class	Total Miles Owned	Miles Owned and Operated	Miles Leased / Operated Under Contract	Miles Operated Under Trackage Rights	Total Miles Operated
Texas Central Business Lines	TCB	Class III	0	0	5	0	5
Texas City Terminal Railway	TCT	Class III	32	32	0	0	32
Texas Coastal Bend Railroad	TCBR	Class III	0	0	60	0	60
Texas, Gonzales & Northern Railway	TXGN	Class III	58	58	0	0	58
Texas & Eastern Railroad	TSR	Class III	0	0	27	0	27
Texas & New Mexico Railway	TXN	Class III	0	0	34	0	34
Texas & Northern Railway	TN	Class III	8	8	0	0	8
Texas & Oklahoma Railroad	TXOR	Class III	17	17	0	5	22
Texas Northeastern Railroad	TNER	Class III	0	0	101	0	101
Texas North Western Railway	TXNW	Class III	164	164	0	0	164
Texas Rock Crusher Railway	TXR	Class III	6	6	0	0	6
Texas Pacifico Transportation Limited	TXPF	Class III	0	0	391	0	391
Timber Rock Railroad	TIBR	Class III	17	17	0	0	17
Western Rail Road	WRRC	Class III	2	2	0	0	2
Wichita, Tillman & Jackson Railway	WTJR	Class III	18	18	0	0	18
Subtotal (Class III)			**1,062**	**1,044**	**1,381**	**22**	**2,425**
State of Texas	N/A	N/A	391	0	0	0	0
Fannin County Rural Rail Transportation District	FRRTD	N/A	35	0	0	0	0
North East Texas Rural Rail Transportation District	NETEX	N/A	29	0	0	0	0
Subtotal (Other Railroads)			**455**	**0**	**0**	**0**	**0**
Total all Railroads			**9,891**	**9,418**	**1,391**	**4,463**	**15,220**

Class I Railroads in Texas

The section describes the three Class I railroads in Texas. Included are data and operating subdivision tables for each railroad, showing such details as ownership, miles owned and operated, trackage and haulage rights, physical characteristics of operating subdivisions, facilities, commodities handled, connections with other railroads, and more. In 2018, Class I railroads in Texas were asked to confirm much of the data appearing in this section and to provide additional input, as appropriate. All three Class I railroads in Texas participated in that data gathering. For this 2024 State Rail Plan, limited information was provided by the three Class I railroads in an effort to update the previous information. No physical inspections of the Class I railroads were conducted during development of the Texas Rail Plan.

BNSF Railway (BNSF)

A summary of statistical information for BNSF Railway (BNSF) within Texas is as follows:[1]

- Line owned: 2,595 miles
- Line operated under lease: 0 miles
- Line operated under contract: 10 miles
- Line operated under trackage rights: 2,783 miles
- Total mileage operated: 4,985 miles
- Line owned, not operated, by respondent: 0 miles

BNSF Interchanges

Interchanges are locations where railroads intersect and exchange railcars. BNSF has the ability to interchange freight rail traffic with two Class I carriers (UP and CPKC) and several Class III carriers. Designated interchange point locations and connecting carriers are listed below:

- Alliance, Texas – CPKC
- Amarillo, Texas – UP
- Beaumont, Texas – CPKC and UP
- Bessmay, Texas – SRN
- Brownwood, Texas – FWWR and TXR
- Corpus Christi, Texas – CCPN, CPKC, and UP
- Eagle Pass, Texas – Ferromex (FXE – a Mexican railroad)
- El Paso, Texas – FXE and UP
- Etter, Texas – TXNW
- Fort Worth, Texas – FWWR and UP
- Galena Park, Texas – UP
- Galveston, Texas – GVSR and UP
- Hondo, Texas – HRR
- Houston, Texas – PTRA
- Irving, Texas – DGNO
- Kerr, Texas – GRR
- Kirbyville, Texas – TIBR
- Lometa, Texas – CTXR
- Longview, Texas – UP
- Lubbock, Texas – LBWR and PSC
- McNeil, Texas – AWRR and UP
- Midlothian, Texas – TCB
- Orange, Texas – Orange Port Terminal Railway (OPT)
- Panhandle, Texas – PNR
- Pasadena, Texas – PTRA
- Plainview, Texas – LBWR
- Robstown, Texas – CPKC
- Saginaw, Texas – FWWR and UP
- San Angelo Jct., Texas – TXPF
- San Antonio, Texas – UP
- Sheldon, Texas – UP
- Sherman, Texas – DGNO, TNER
- Slaton, Texas – SLAL
- Strand, Texas – UP
- Sweetwater, Texas – TXOR and UP
- Temple, Texas – TC and UP
- Tenaha, Texas – UP
- Texarkana, TNER
- Texas City, Texas – TCT
- Wichita Falls, Texas – WTJR

BNSF Operating Rights and Joint Trackage in Texas

There are instances in which one or more railroad(s) have operating rights over another railroad, owing generally to factors related to maintaining competitive rail access, connectivity between railroads, and other considerations.

1 https://www.bnsf.com/about-bnsf/financial-information/pdf/23R1.pdf

Trackage rights provide authority for one railroad (a tenant) to operate its trains over the line of another railroad (host). Haulage rights is an arrangement whereby one railroad markets service over a route owned by another, but does not operate its own trains over the host railroad. Any segments over which BNSF may potentially have haulage rights are not identified in this Texas State Rail Plan.

Principal segments of the Texas state rail network over which BNSF has trackage rights include:

- Dallas-Fort Worth, Texas – TRE, UP
- Dallas (McKinney)-Sherman, Texas – DGNO
- Fort Worth, Texas-Texas / Oklahoma state line – UP
- Fort Worth-Sweetwater, Texas – UP
- Sealy-San Antonio-Eagle Pass, Texas – UP
- Houston-Brownsville, Texas – UP
- Houston-Longview-Texarkana, Texas-Texas / Arkansas state line – UP
- Houston, Beaumont, Texas – UP
- Houston-Tenaha, Texas-Texas / Louisiana state line – UP
- Texas / Oklahoma state line-Dalhart, Texas-Texas / New Mexico state line – UP

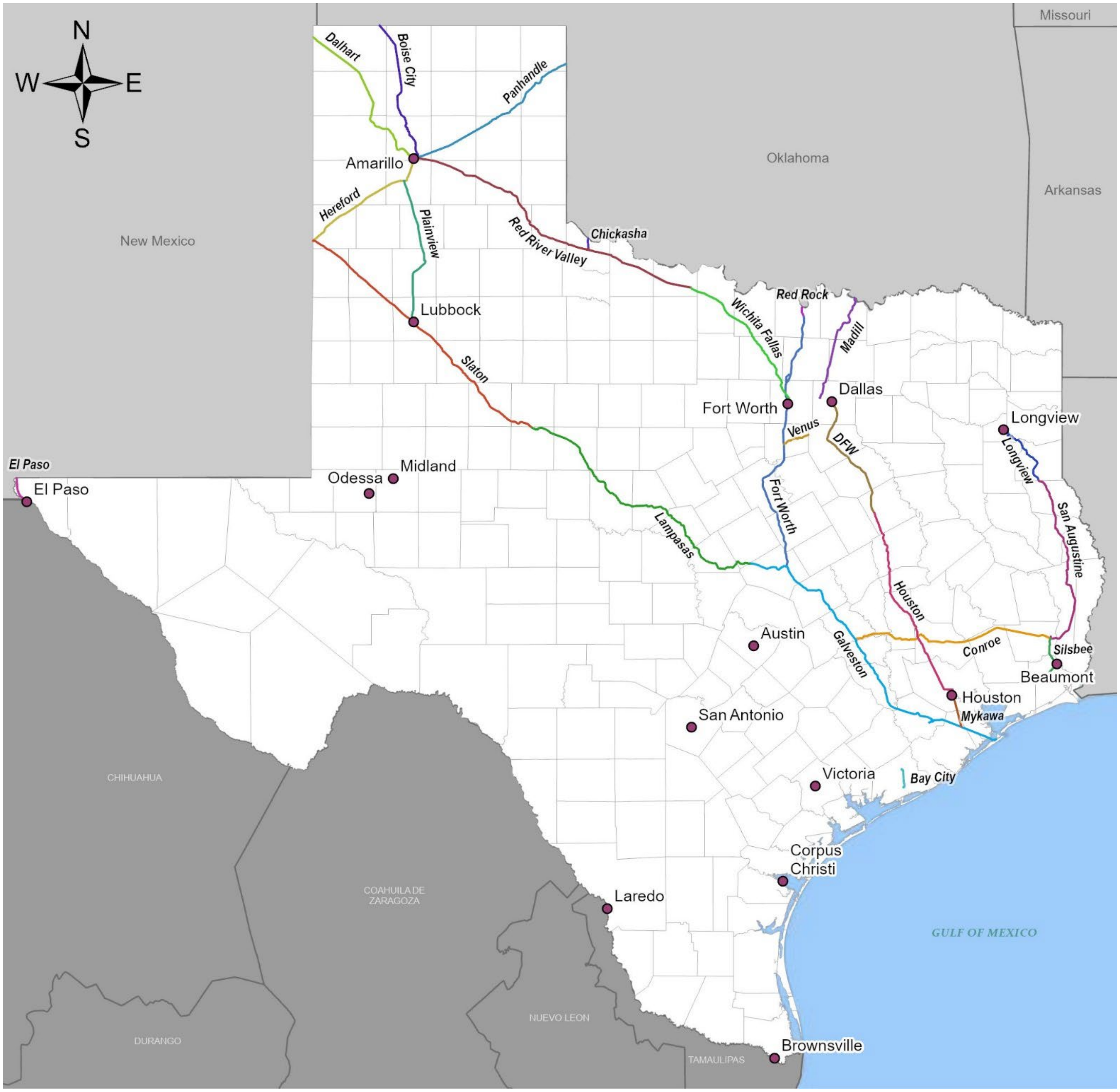
BNSF Divisions and Subdivisions in Texas

BNSF's Texas network is comprised of part of three operating divisions:

- Kansas
- Red River
- Southwest

BNSF's 25 operating subdivisions in Texas are shown in Figure A-1. BNSF's Texas subdivisions are presented by division and described in the tables below.

Figure A-1:BNSF Subdivisions in Texas



The Texas subdivisions shown in Table A-2 are components of the BNSF Kansas Division.

Table A-2: Descriptions of BNSF Subdivisions – Kansas Division

Subdivision	Boise City
Division	Kansas
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 256.8 miles; approximately 100 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	49 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	Centralized Traffic Control (CTC) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Traffic Density (2017) in Annual Gross Tons per Mile (in Millions)	51 MGT
Average Number of Trains per Day (2017)	12
Industrial Leads	Manter Industrial Spur; CV Industrial Spur; Machovec Industrial Spur; Harrington Power Plant (Asarco Spur)

Subdivision	Dalhart
Division	Kansas
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 119.3 miles total; approximately 118 miles in Texas
FRA Track Class	Class 5
Track Configuration	Single Main Track with Sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS)
Method of Operation	Track Warrant Control (TWC) Automatic Block Signal System (ABS) Restricted Limits (RL) Yard Limits (YL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Traffic Density (2017) in Annual Gross Tons per Mile (in Millions)	16 MGT
Average Number of Trains per Day (2017)	12
Industrial Leads	N/A

Subdivision	Hereford
Division	Kansas
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 105.2 miles; approximately 95 miles in Texas
FRA Track Class	Class 5
Track Configuration	Double and triple main tracks with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Traffic Density (2017) in Annual Gross Tons per Mile (in Millions)	202 MGT
Average Number of Trains per Day (2017)	86
Industrial Leads	N/A

Subdivision	Panhandle
Division	Kansas
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 312.5 miles; approximately 123 miles in Texas
FRA Track Class	Class 5
Track Configuration	Double main tracks with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Traffic Density (2017) in Annual Gross Tons per Mile (in Millions)	175 MGT
Average Number of Trains per Day (2017)	72
Industrial Leads	Pampa Industrial Spur

The Texas subdivisions shown in Table A-3 are components of the BNSF Red River Division.

Table A-3: Descriptions of BNSF Subdivisions – Red River Division

Subdivision	Bay City
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 17.5 miles
FRA Track Class	Class I
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	10 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Restricted Limits (RL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	2 MGT
Average Number of Trains per Day (2017)	1
Industrial Leads	Celanese Industrial Spur

Subdivision	BBRX*
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 14.7 miles
FRA Track Class	Class 2
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	20 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	General Code of Operating Rules (GCOR) Rule 6.28: Restricted
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Chickasha*
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 54.5 miles; approximately
FRA Track Class	Class 2
Track Configuration	Single main track with a passing siding
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Restricted Limits (RL) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	268,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	1
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Conroe
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 152.2 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	10 MGT
Average Number of Trains per Day (2017)	6
Industrial Leads	N/A

Subdivision	DFW
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 94.0 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	40 mph
Wayside Signals	Automatic Block Signal System (ABS)
Method of Operation	Track Warrant Control (TWC) Automatic Block Signal System (ABS)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	25 MGT
Average Number of Trains per Day (2017)	6
Industrial Leads	N/A

Subdivision	Fort Worth
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 193.3 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; some portions of double main track with passing sidings
Maximum Authorized Speed Freight	55 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	66 to 73 MGT
Average Number of Trains per Day (2017)	28
Industrial Leads	Dublin Industrial Spur

Subdivision	Galveston
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 217.8 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; some portions of double main track with passing sidings; some portions with 6 main tracks near Opal, Texas
Maximum Authorized Speed Freight	55 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC Track Warrant Control (TWC) Automatic Block Signal (ABS)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	32 to 73 MGT
Average Number of Trains per Day (2017)	23 to 36
Industrial Leads	Smithers Lake Industrial Lead Spur

Subdivision	Houston
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 148.2 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	40
Maximum Authorized Speed Passenger	N/A
Wayside Signals	ABS
Method of Operation	Automatic Block Signal System (ABS) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	17 MGT
Average Number of Trains per Day (2017)	7
Industrial Leads	N/A

Subdivision	Lampasas
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 241.5 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	55 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal (ABS) Centralized Traffic Control (CTC) Automatic Block Signal System (ABS)
Method of Operation	Track Warrant Control (TWC) Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	27 MGT
Average Number of Trains per Day (2017)	12
Industrial Leads	N/A

Subdivision	Longview
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 186.6 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	268,000 lbs.
Clearances	AAR Clearance Plate B, C, E, F, and J (not AAR Clearance Plate H or K)
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	9 MGT
Average Number of Trains per Day (2017)	3-5
Industrial Leads	N/A

Subdivision	Madill
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 108.4 miles; approximately 80 miles in Texas
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC) Automatic Block Signal System (ABS)
Method of Operation	Centralized Traffic Control (CTC) Track Warrant Control (TWC) Automatic Block Signal System (ABS)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	31 MGT
Average Number of Trains per Day (2017)	9
Industrial Leads	J&J Industrial Lead

Subdivision	Mykawa
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 19.3 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	55 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	46 MGT
Average Number of Trains per Day (2017)	22
Industrial Leads	N/A

Subdivision	Plainview
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 102.7 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	20 MGT
Average Number of Trains per Day (2017)	9
Industrial Leads	N/A

Subdivision	Red River Valley
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 220.6 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; some double-track areas near junctions
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs. (the Valley Spur is restricted to 268,000 lbs.)
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	50 MGT
Average Number of Trains per Day (2017)	18
Industrial Leads	Valley Spur

Subdivision	Red Rock*
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 260.6 miles; approximately 6 miles in Texas
FRA Track Class	N/A
Track Configuration	N/A
Maximum Authorized Speed Freight	N/A
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	N/A
Maximum Allowable Gross Weight	N/A
Clearances	N/A
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	N/A
Average Number of Trains per Day (2017)	N/A
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	San Augustine
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	N/A
FRA Track Class	N/A
Track Configuration	N/A
Maximum Authorized Speed Freight	N/A
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	N/A
Maximum Allowable Gross Weight	N/A
Clearances	N/A
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	N/A
Average Number of Trains per Day (2017)	N/A
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

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Subdivision	Silsbee
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 19.7 miles
FRA Track Class	Class 4
Track Configuration	Single main track with a passing siding
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Restricted Limits (RL) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	9 MGT
Average Number of Trains per Day (2017)	22
Industrial Leads	N/A

Subdivision	Slaton
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 208.7 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; double-track areas near junctions
Maximum Authorized Speed Freight	55 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC Restricted Limits (RL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	24 MGT
Average Number of Trains per Day (2017)	12
Industrial Leads	Southwestern Public Service Industrial Spur

Subdivision	Venus
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 18.0 miles
FRA Track Class	Class 2
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC) Restricted Limits (RL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	2 to 4 MGT
Average Number of Trains per Day (2017)	1 to 2
Industrial Leads	Ward Industrial Spur

Subdivision	Wichita Falls
Division	Red River
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Total 109.3 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; double main track from CP 11 to Deen Road (14.2 miles)
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	ABS CTC Restricted Limits (RL) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Clearance Plate B through K
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	48 MGT
Average Number of Trains per Day (2017)	18
Industrial Leads	N/A

The Texas subdivisions shown in are components of the BNSF Southwest Division.

Subdivision	El Paso*
Division	Southwest
Owner	BNSF Railway
Operator	BNSF Railway
Subdivision Route / Mileage	Approximately 20 miles in Texas
FRA Track Class	N/A
Track Configuration	N/A
Maximum Authorized Speed Freight	N/A
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	N/A
Maximum Allowable Gross Weight	N/A
Clearances	N/A
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	N/A
Average Number of Trains per Day (2017)	N/A
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Canadian Pacific Kansas City (CPKC)

A summary of statistical information for CPKC Railway (CPKC) within Texas is as follows:[2]

- Line owned: 590 miles
- Line operated under lease: 0 miles
- Line operated under contract: 0 miles
- Line operated under trackage rights: 349 miles
- Total mileage operated: 939 miles
- Line owned, not operated, by respondent: 0 miles

CPKC Interchanges

Interchanges are locations where railroads intersect and exchange railcars. CPKC has the ability to interchange freight rail traffic with two Class I carriers (BNSF and UP) and several Class III carriers. Designated interchange point locations and connecting carriers are listed below:

- Alliance, Texas – BNSF
- Beaumont, Texas – BNSF and UP
- Brownsville, Texas – BGR, BNSF, and UP
- Corpus Christi, Texas – BNSF, CCPN, and UP
- Dallas, Texas – BNSF, DGNO, and UP
- Fort Worth, Texas – FWWR through bridge connection with BNSF
- Garland, TX – DGNO
- Hot Sulphur Springs, Texas – BLR
- Houston, Texas – BNSF, PTRA, and UP
- Laredo, Texas – UP and Kansas City Southern de Mexico (KCSM is a subsidiary of CPKC that operates within Mexico)
- Lemonville, Texas – SRN
- San Angelo Junction, Texas – TXPF
- Sulphur Springs, Texas – BLR
- Veals, Texas – TN

CPKC Operating Rights and Joint Trackage in Texas

There are instances in which one or more railroad(s) have operating rights over another railroad, owing generally to factors related to maintaining competitive rail access, connectivity between railroads, and other considerations. Trackage rights provide authority for one railroad (a tenant) to operate its trains over the line of another railroad (host). Haulage rights is an arrangement whereby one railroad markets service over a route owned by another, but does not operate its own trains over the host railroad. Any segments over which CPKC may potentially have haulage rights are not identified in this Texas State Rail Plan.

Principal segments of the Texas state rail network over which CPKC has trackage rights include:

- Fort Worth (Metro)-Alliance, Texas – BNSF
- Beaumont-Rosenberg, Texas – UP
- Victoria-Robstown, Texas – UP

2 https://www.stb.gov/wp-content/uploads/R1-KCS-2023.xlsx.

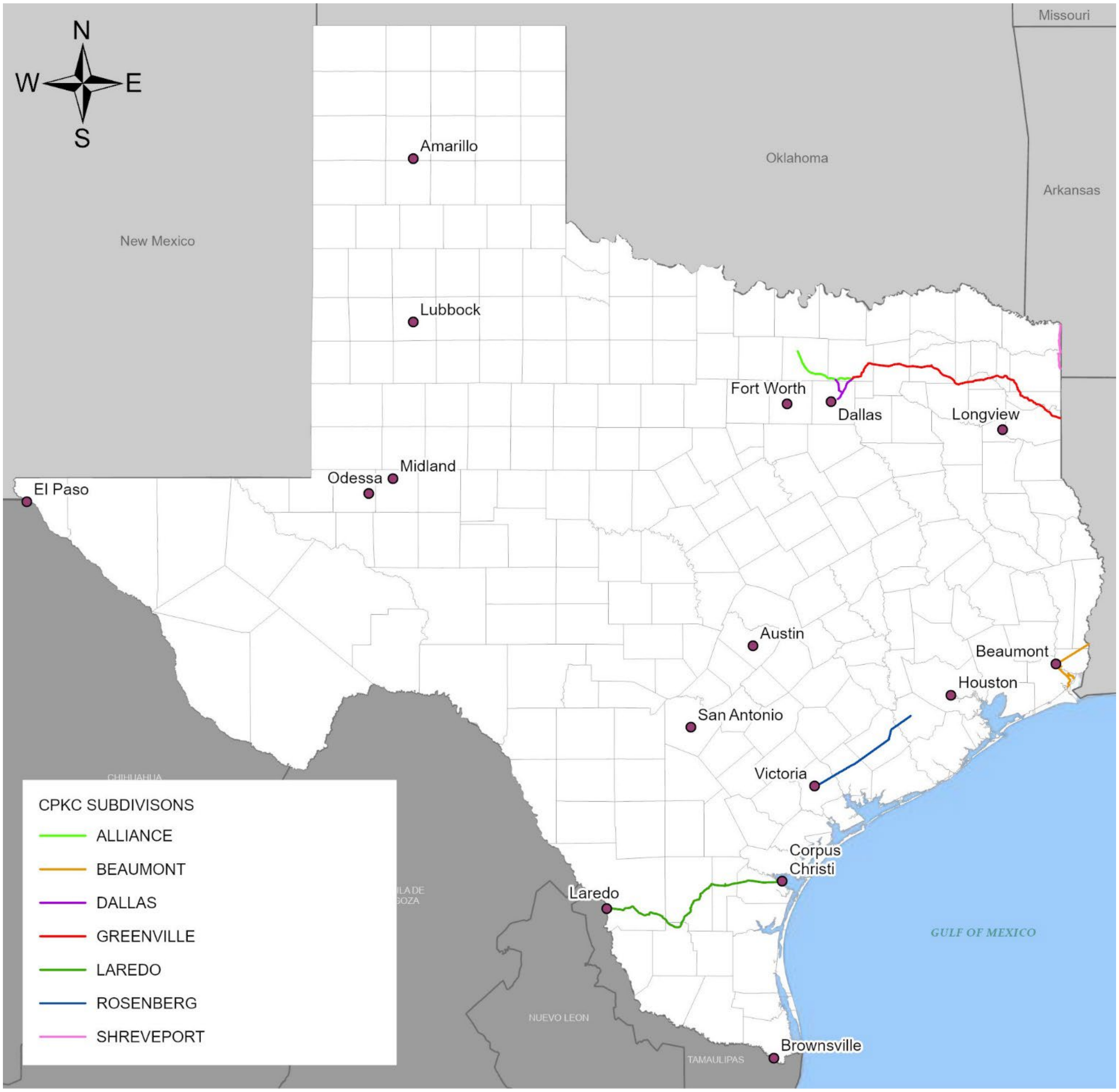
CPKC Divisions and Subdivisions in Texas

CPKC's Texas network is comprised of part of two operating divisions (based on input gathered in 2019):

- Midwest Division
- Southwest Division

CPKC's seven operating subdivisions in Texas are shown in Figure A-2. CPKC's Texas subdivisions are presented by division and described in the tables below.

Figure A-2: CPKC Network in Texas



The Texas subdivisions shown in Table A-4 are components of the CPKC Midwest Division.

Table A-4: Description of CPKC Subdivisions – Midwest Division

Subdivision	Alliance Subdivision
Division	Midwest
Owner	CPKC
Operator	CPKC
Subdivision Route / Mileage	Total 49.4 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	30 mph freight; 35 mph intermodal
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Yard Limits (YL) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	2
Industrial Leads	None

Subdivision	Dallas Subdivision
Division	Midwest
Owner	CPKC
Operator	CPKC
Subdivision Route / Mileage	Total 18.1 miles
FRA Track Class	Class 3
Track Configuration	Single main track
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	General Code of Regulations (GCOR) Rule 6.28 Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	7
Industrial Leads	None

Subdivision	White Rock Branch
Division	Midwest
Owner	CPKC
Operator	CPKC
Subdivision Route / Mileage	Total 10.9 miles
FRA Track Class	Class 2
Track Configuration	Single main track
Maximum Authorized Speed Freight	20 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Yard Limits (YL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	2
Industrial Leads	None

Subdivision	Greenville Subdivision
Division	Midwest
Owner	CPKC
Operator	CPKC
Subdivision Route / Mileage	Total 183.6 miles; 173.7 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track
Maximum Authorized Speed Freight	55 mph freight 59 mph intermodal
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Yard Limits (YL) Centralized Traffic Control (CTC) *(Positive Train Control (PTC) is required and has been implemented)*
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	7
Industrial Leads	None

The Texas subdivisions shown in Table A-5 are components of the CPKC Southwest Division.

Table A-5: Description of CPKC Subdivisions – Southwest Division

Subdivision	Beaumont Subdivision
Division	Southwest
Owner	CPKC
Operator	CPKC
Subdivision Route / Mileage	Total 209.1 miles; 51.2 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	55 mph freight 59 mph intermodal
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	Centralized Traffic Control (CTC) General Code of Operating Rules (GCOR) Rule 6.28: Restricted Speed
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	17
Industrial Leads	Bayou Pierre Industrial Lead; Fort Polk Military Base; Boise

Subdivision	Rosenburg Subdivision
Division	Southwest
Owner	CPKC
Operator	CPKC
Subdivision Route / Mileage	Total 84.6 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	49 mph freight 49 mph intermodal
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC) *(Positive Train Control (PTC) is required and has been implemented)*
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	8 to 10
Division	Southwest

Subdivision	Laredo Subdivision
Division	Southwest
Owner	CPKC
Operator	CPKC
Subdivision Route / Mileage	Total 159.5 miles
FRA Track Class	Class 4
Track Configuration	One main track with passing sidings
Maximum Authorized Speed Freight	49 mph freight 49 mph intermodal
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	Yard Limits (YL) Centralized Traffic Control (CTC) *(Positive Train Control (PTC) is required and has been implemented)*
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	14
Industrial Leads	None

Union Pacific Railroad (UP)

A summary of statistical information for Union Pacific Railroad (UP) within Texas is as follows:[3]

- Line owned: 5,189 miles
- Line operated under lease: 0 miles
- Line operated under contract: 0 miles
- Line operated under trackage rights: 1,309 miles
- Total mileage operated: 6,498 miles
- Line owned, not operated, by respondent: 226 miles

UP Interchanges

Interchanges are locations where railroads intersect and exchange railcars. BNSF has the ability to interchange freight rail traffic with two Class I carriers (BNSF and CPKC) and several Class III carriers. Designated interchange point locations and connecting carriers are listed below:

- Abilene, Texas – SSC
- Alpine, Texas – TXPF
- Beaumont, Texas – BNSF and CPKC
- Beckmann, Texas – AGCR
- Big Springs, Texas – BGR
- Brownsville, Texas – BSR and CPKC
- Corpus Christi, Texas – BNSF, CCPN, and CPKC
- Dallas, Texas – BNSF, DGNO, and CPKC
- Denison, Texas – TNER and DGNO
- Diboll, Texas – RJCD
- Dittlinger, Texas – WRRC
- Dunlay, Texas – SGRR
- Echo, Texas – SRN
- El Paso, Texas – BNSF and Ferromex (FXE is a railroad that operates within Mexico)
- Elgin, Texas – AWWR
- Encinal, Texas – LSRY
- Fort Worth, Texas – BNSF, FWWR, and TXPF
- Galena Park, Texas – BNSF
- Galveston, Texas – BNSF and GVSR
- Gardendale, Texas – GRD
- Giddings, Texas – AWWR
- Granger, Texas – GRR
- Gonzales, Texas – TXGN
- Harlingen, Texas – RVSC
- Harwood, Texas – TXGN
- Henderson, Texas – BLR
- Hondo, Texas – HRR
- Houston, Texas – CPKC and PTRA
- Kerr, Texas – GRR
- Kirbyville, Texas – TIBR
- Laredo, Texas – UP
- Lolita, Texas – PCN
- Longview, Texas – BNSF
- Lubbock, Texas – LBWR and PSC
- Lufkin, Texas – ANR
- Marjorie, Texas – RSS
- Mauriceville, Texas – SRN
- McNeil, Texas – AWRR and BNSF
- Midlothian, Texas – TCB
- Miller, Texas – DGNO
- Mission, Texas – BOP
- Monahans, Texas – TXN
- Moscow, Texas – MCSA
- Mount Pleasant, Texas – BLR
- Olmito, Texas – BGR
- Orange, Texas - OPT
- Overton, Texas – BLR
- Palestine, Texas – TSR
- Pecos, Texas – PVSR
- Saginaw, Texas – BNSF
- San Antonio, Texas – BNSF and SAC

3 https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_up_r1_2023.pdf.

- Sheldon, Texas – BNSF
- Smith, Texas – GRR
- Strand, Texas – BNSF
- Sulphur Springs, Texas – BLR
- Sweetwater, Texas – BNSF
- Temple, Texas – BNSF
- Tenaha, Texas – BNSF
- Texarkana, Texas – TNER
- Texas City, Texas – TCT

UP Operating Rights and Joint Trackage in Texas

There are instances in which one or more railroad(s) have operating rights over another railroad, owing generally to factors related to maintaining competitive rail access, connectivity between railroads, and other considerations. Trackage rights provide authority for one railroad (a tenant) to operate its trains over the line of another railroad (host). Haulage rights is an arrangement whereby one railroad markets service over a route owned by another, but does not operate its own trains over the host railroad. Any segments over which UP may potentially have haulage rights are not identified in this Texas State Rail Plan.

Principal segments of the Texas state rail network over which UP has trackage rights include:

- Dallas-Fort Worth, Texas – TRE, BNSF
- Dallas-Waxahachie, Texas – BNSF
- Fort Worth, Texas-Texas / Oklahoma state line – BNSF
- Fort Worth-Wichita Falls-Amarillo, Texas-Texas / New Mexico state line – BNSF
- Amarillo-Stratford, Texas-Texas / Oklahoma state line – BNSF
- Amarillo-Lubbock, Texas – BNSF
- Houston-Alvin, Texas – BNSF
- Sealy-Rosenberg-Arcola-Alvin-Virginia Point-Galveston, Texas – BNSF
- Beaumont, Texas-Texas / Louisiana state line – CPKC

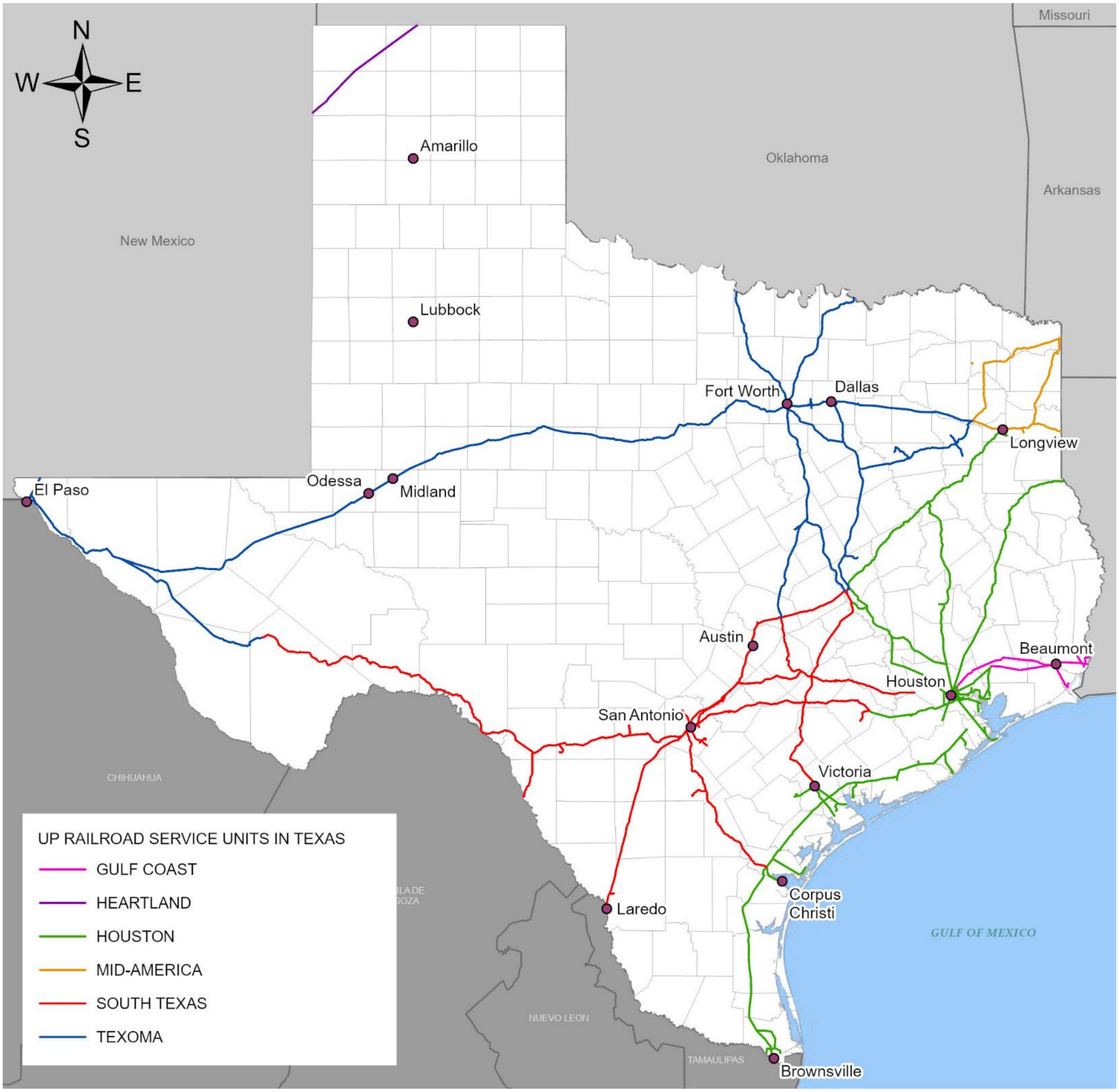
UP Divisions and Subdivisions in Texas

UP's Texas network is comprised of all or part of the following six service units (divisions):

- Heartland
- Houston
- Gulf Coast
- Mid-America
- South Texas
- Texoma

UP's Service Units in Texas are shown in Figure A-3. UP's Texas subdivisions are presented by Service Unit and described in the tables below.

Figure A-3: UP Service Units in Texas



The Texas subdivisions shown in Table A-6 are components of the UP Heartland Service Unit.

Table A-6: Descriptions of UP Subdivisions – Heartland Service Unit

Subdivision	Pratt
Division	Heartland
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 242.6 miles; approximately 49 miles in Texas
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	30-35 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Tucumcari
Division	Heartland
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 195.6 miles; approximately 43 miles in Texas
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	30-35 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

The Texas subdivisions shown in Table A-7 are components of the UP Houston Service Unit.

Table A-7: Descriptions UP Subdivisions – Houston Service Unit

Subdivision	Angleton
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 122.1 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	50 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	15-35 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Chocolate Industrial Lead; Phillips Refinery Industrial Lead; Celanese Industrial Lead; Port Lavaca Industrial Lead; Freeport Industrial Lead

Subdivision	Baytown
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 48.7 miles
FRA Track Class	Class 2
Track Configuration	
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC Yard Limits (YL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Unknown
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	5-7 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Cedar Bayou Industrial Lead

Subdivision	Brownsville
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	221.0
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	50 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC Track Warrant Control (TWC) Yard Limits (YL)
Maximum Allowable Gross Weight	268,000 lbs. between Bloomington and Sinton Junction (Exception: 143 Tons for CPKC trains); 286,000 lbs. between Sinton Jct. and Brownsville
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	6-10 MGT (UP only)
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Kosmos Industrial Lead; Victoria Industrial Lead; Seadrift Industrial Lead

Subdivision	Bryan
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 21.3 miles
FRA Track Class	Class 2
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	Yard Limits (YL) ABS CTC Track Warrant Control (TWC)
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Coleto Creek
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 15.0 miles
FRA Track Class	Class 2
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Yard Limits (YL) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Unknown
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	2-3 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Cuero
Division	South Texas and Houston *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 108.0 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	50 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Bock Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	Track Warrant Control (TWC) ABS CTC Yard Limits (YL)
Maximum Allowable Gross Weight	315,000 lbs. between CP FL077 and Flatonia 286,000 lbs. tons between Flatonia and Placedo
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	5-6 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

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Subdivision	Eureka
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 65.2 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC) Automatic Block Signal System (ABS)
Method of Operation	CTC ABS Track Warrant Control (TWC)
Maximum Allowable Gross Weight	315,000 lbs.; Katy Eureka Industrial Lead is restricted to 268,000lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	1-2 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Katy Eureka Industrial Lead

Subdivision	Galveston
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 46.4 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	35 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC Yard Limits (YL) Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs. (268,000 lbs. on the Texas City Industrial Lead and Galveston Island Lead)
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	3-5 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Texas City Industrial Lead; Galveston Island Lead

Subdivision	Glidden
Division	South Texas and Houston *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 187.8 miles
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings between Missouri City and Randolph; double main track between Heacker and Tower 17, and between CP SA197 and Kirby
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.; Arenal Industrial Lead is restricted to 286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	40-55 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Arenal Industrial Lead

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Harlingen
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 24.0 miles
FRA Track Class	Class 2
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	268,000 lbs.
Clearances	Unknown
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	1-2 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Olmito Industrial Lead; Palo Alto Industrial Lead

Subdivision	Harrisburg
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 12.4 miles
FRA Track Class	Class 3
Track Configuration	Single main track with a passing siding
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	12-14 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Columbia Tap Industrial Lead; Spence Industrial Lead; Popp Industrial Lead

Subdivision	Hearne
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 88.5 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	ABS CTC Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	28-30 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Houston East Belt
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 88.5 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	ABS CTC Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	28-30 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Houston West Belt
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 9.2 miles
FRA Track Class	Class 2
Track Configuration	Double main track between Belt Junction and Freight Junction, and Tower 26 and T&NO Junction; triple main track between Freight Junction and Tower 71
Maximum Authorized Speed Freight	20 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs. between Belt Jct. and Tower 26; 286,000 lbs. between Tower 26 and BNSF Connection
Clearances	Unknown
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	30-35 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Lufkin
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 228.7 miles; approximately 188 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	Yard limits (YL) ABS CTC Track Warrant Control (TWC)
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	12-15 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Jacksonville Industrial Lead; T&NO Industrial Lead

Subdivision	Navasota
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 100.9 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings between Valley Junction and South Mumford, and between Millican and Spring Junction; Double main track between Bush Junction and Bryan
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	40-45 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Palestine
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 228.9 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings between Longview and Conroe; double main track with passing sidings between Spring Junction and Belt Junction
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs. between Longview and Spring Jct. 315,000 lbs. between Spring Jct. and Belt Jct.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	20-22 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	LeTourneau Industrial Lead; Henderson Industrial Lead

Subdivision	Rosenburg
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 2.6 miles
FRA Track Class	Class 3
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Strang
Division	Houston
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 21.1 miles
FRA Track Class	Class 2
Track Configuration	Double main track between S. Tower 68 and CP ST002, between Sinco Junction and Pasadena, and between Deer Park Junction and Strang; single main track with a passing siding between Buffalo Bayou and Manchester Junction
Maximum Authorized Speed Freight	20 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs. between S.Tower 68 and Deer Park Jct. 286,000 lbs. between Dear Park Jct. and Strang
Clearances	Unknown
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	6-8 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Bayport Loop Industrial Lead; HL&P Industrial Lead; Dart Industrial Lead; Velsicol Industrial Lead; Navigation Industrial Lead; Barbours Cut Industrial Lead; Seabrook Industrial Lead

The Texas subdivisions shown in Table A-8 are components of the UP Gulf Coast Service Unit.

Table A-8: Description of UP Subdivisions – Gulf Coast Service Unit

Subdivision	Beaumont
Division	Gulf Coast *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 243.7 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings between Langham Road and Huffman, and between West Wye Junction and Gulf Coast Junction; double main track between Dyersdale Junction and East Wye Junction
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	15-20 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Houston
Division	Gulf Coast *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 94.5 miles
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings between Langham Road and Fauna; double main track between Dawes and Heacker
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	25-30 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Sabine Industrial Lead

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Lafayette
Division	Gulf Coast
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 76.8 miles; approximately 32 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings between Iowa Junction and Neches River; double main track between Wall Street and Beaumont
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	75 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315, 000 lbs.; Sabine Industrial Lead, Lake Charles Industrial Lead, Harbor Industrial Lead are restricted to 286,000lbs.; Rosebluff Industrial Lead and Orange Industrial Lead are restricted to 268,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	20-25 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Sabine Industrial Lead; Lake Charles Industrial Lead; Harbor Industrial Lead; Rosebluff Industrial Lead; and Orange Industrial Lead

The Texas subdivisions shown in Table A-9 are components of the UP Mid-America Service Unit.

Table A-9: Descriptions of UP Subdivisions – Mid-America Service Unit

Subdivision	Little Rock*
Division	Mid-America*
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 236 miles; approximately 89 miles in Texas
FRA Track Class	N/A
Track Configuration	N/A
Maximum Authorized Speed Freight	N/A
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	N/A
Maximum Allowable Gross Weight	N/A
Clearances	N/A
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	N/A
Average Number of Trains per Day (2017)	N/A
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Pine Bluff*
Division	Mid-America*
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 262.5 miles; approximately 106 miles in Texas
FRA Track Class	N/A
Track Configuration	N/A
Maximum Authorized Speed Freight	N/A
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	N/A
Maximum Allowable Gross Weight	N/A
Clearances	N/A
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	N/A
Average Number of Trains per Day (2017)	N/A
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Reisor
Division	Mid-America
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 155.7 miles; approximately 21 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	ABS CTC Track Warrant Control (TWC) Yard Limits (YL)
Maximum Allowable Gross Weight	315,000 lbs. between Marshall Junction and Hollywood Junction 286,000 lbs. between Hollywood Junction and Texmo Junction
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	24-26 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Bayou Pierre Lead; Dolet Hills Lead; Shreveport Industrial Lead

The Texas subdivisions shown in Table A-10 are components of the UP South Texas Service Unit.

Table A-10: Description of UP Subdivisions – South Texas Service Unit

Subdivision	Austin
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 170.5 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings between Hearne and Centex; double main tracks between UPRR Junction and Tower 105 (Main Track #1), and between Centex and Tower 112 (Main Track #2)
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	70 mph
Wayside Signals	Centralized Traffic Control (CTC) Automatic Block Signal System (ABS)
Method of Operation	CTC ABS
Maximum Allowable Gross Weight	286,000 lbs.; Bergstrom Industrial Lead and Kerrville Industrial Lead are restricted to 268,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	38-42 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Georgetown Industrial Lead; Bergstrom Industrial Lead; Kerrville Industrial Lead

Subdivision	Corpus Christi
Division	South Texas and Houston *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 145.9 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC) Yard Limits (YL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	6-8 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Del Rio
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 178.0 miles
FRA Track Class	Class 5
Track Configuration	Double main track between Kirby and Sosan; single main track with passing sidings between Withers and CP SA217
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.; Cline Mine Industrial Lead and Kerrville Lead are restricted to 268,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	25-55 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Cline Mine Industrial Lead; Kerrville Lead

Subdivision	Eagle Pass
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 34.6 miles
FRA Track Class	Class 3
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC) Yard Limits (YL)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	24-26 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Giddings*
Division	South Texas *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 77.1 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	38-40 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Kerrville
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 15.0 miles
FRA Track Class	Class 2
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.; Camp Stanley Industrial Lead is restricted to 268,000 lbs.
Clearances	Unknown
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	1 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Camp Stanley Industrial Lead

Subdivision	Laredo
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 152.1 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings between Tower 105 and CP J397, and between Port Laredo X-Over and Laredo; double main track at Uniroyal
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	30-45 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Lockhart
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 51.9 miles
FRA Track Class	Class 3
Track Configuration	Single main track with one passing siding
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS)
Method of Operation	ABS Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	18-22 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Rockport
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 16.1 miles
FRA Track Class	Class 3
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	30 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	8-10 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Sanderson
Division	South Texas
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 222.4 miles
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	24-26 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Smithville*
Division	South Texas *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 65.8 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS)
Method of Operation	ABS Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	10-12 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Sealy Industrial Lead

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

The Texas subdivisions shown in Table A-11 are components of the UP Texoma Service Unit.

Table A-11: Description of UP Subdivisions – Texoma Service Unit

Subdivision	Athens
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 13.6 miles
FRA Track Class	Class 2
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	N/A
Method of Operation	Track Warrant Control (TWC)
Maximum Allowable Gross Weight	268,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Unknown
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Baird
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 196.0 miles
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	55-60 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	A & S Industrial Lead

Subdivision	Carrizozo
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 229.0 miles; approximately 18 miles are located in Texas
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	38-42 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Choctaw
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 190.6 miles; approximately 99 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; two main tracks between Ray and Pottsboro, and FWWR Junction and South Tower 55
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	60-75 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Corsicana
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 96.2 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	ABS CTC Track Warrant Control (TWC)
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	24-28 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Tyler Industrial Lead

Subdivision	Dallas
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 49.6 miles
FRA Track Class	Class 4
Track Configuration	Double main track with no passing sidings between Trinity/SP Junction to Tower 55; quadruple main track between West Tower 55 to River; triple main track between River and West Bypass; single main track from Bryant Irvin to West Fort Worth
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	SP Junction to TRE Junction – 315,000 lbs. TRE Junction to Davidson Yard – 286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	45-70 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	DFW
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 32.2 miles
FRA Track Class	Class 1
Track Configuration	Single main track with no passing sidings
Maximum Authorized Speed Freight	10 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Unknown
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	Under 1 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Duncan
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 176.6 miles; approximately 94 miles in Texas
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; two main tracks between Peach and Purina Junction
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	Track Warrant Control (TWC) Yard Limits (YL) ABS
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	15-20 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Ennis
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 140.5 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS) Centralized Traffic Control (CTC)
Method of Operation	ABS CTC Track Warrant Control (TWC) Yard Limit (YL)
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	35-65 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Fort Worth
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 150.0 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings; double main track between from Ney to South Ney Junction; triple main track from South Tower 55 to Ney
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	32-48 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Hillsboro Industrial Lead

Subdivision	Midlothian
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 50.2 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS)
Method of Operation	ABS Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	35-40 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Mineola
Division	Texoma and Mid-America *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 123.3 miles
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings; two main tracks between Longview and Longview Junction
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	Longview to SP Jct. – 286,000 lbs. MP Jct. to SP Jct. – 315,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	44-48 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Subdivision	Toyah
Division	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 320.9 miles
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	40-60 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	N/A

Subdivision	Valentine
.	Texoma
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 212.3 miles
FRA Track Class	Class 5
Track Configuration	Single main track with passing sidings between Apline Siding and Clint; double main track between Belen and El Paso
Maximum Authorized Speed Freight	70 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Centralized Traffic Control (CTC)
Method of Operation	CTC
Maximum Allowable Gross Weight	315,000 lbs.; Fort Bliss Industrial Lead is restricted to 286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	20-60 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Fort Bliss Industrial Lead

Subdivision	Waco
Division	Texoma and South Texas *
Owner	Union Pacific Railroad
Operator	Union Pacific Railroad
Subdivision Route / Mileage	Total 127.3 miles
FRA Track Class	Class 4
Track Configuration	Single main track with passing sidings
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	N/A
Wayside Signals	Automatic Block Signal System (ABS)
Method of Operation	ABS Track Warrant Control (TWC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Can accommodate double-stack intermodal equipment
Current Line Density (2017) in Annual Gross Tons per Mile (in Millions)	7-10 MGT
Average Number of Trains per Day (2017)	Unknown
Industrial Leads	Gatesville Industrial Lead

**Unable to confirm data in table for this 2024 Texas Rail Plan Update.*

Class II Railroads in Texas

No Class II railroads operate in Texas.

Class III Railroads in Texas

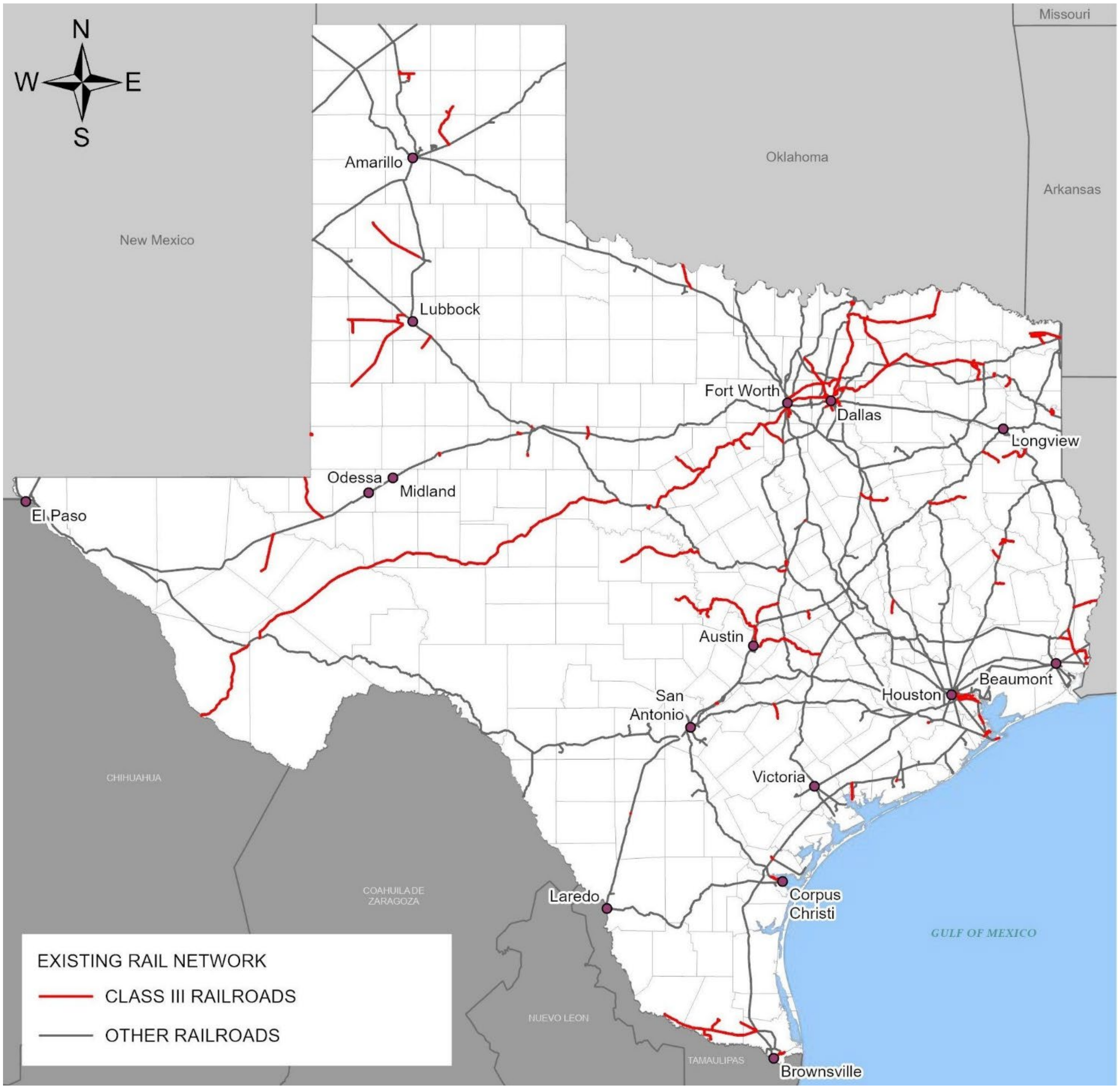
The majority of railroad operators in Texas are classified as Class III railroads, although their 2,031 miles of track, including trackage rights, make up only approximately 19% of the state's total trackage in 2023. Often referred to as "short lines," Class III railroads usually engage in specialized services and are typically geographically concentrated. One characteristic of short lines is that they may be privately owned to serve only a specific company or industry. For example, the Angelina & Neches River Railroad was founded by a paper mill and now connects shippers in the Lufkin area to UP rail lines. Short lines are also used to connect a group of local customers to Class I networks. Many short lines came into existence through the purchase of track formerly controlled by Class I railroads. For example, the Panhandle Northern Railroad operates on 31 miles of track acquired from the Atchison, Topeka and Santa Fe Railway Company (ATSF) following the sale of the line in 1993.

Some Texas ports, such as Houston, Corpus Christi, and Orange, are served by dedicated switching railroads (Port Terminal Railroad Association, Texas Coastal Bend Railroad, and the Orange Port Terminal Railway, respectively) that provide rail services in close proximity to the port areas. Switching railroads, such as the Dallas, Garland & Northeastern (DGNO), operate on Class I rail lines or on their own track and deliver or pick up goods (e.g., limestone, farm products, plastics, lumber, soybean oil, steel, paper, chemicals, and auto parts) within the region. The DGNO serves as a switching carrier for UP in the Dallas region and interchanges rail cars to provide cross-country rail services to area shippers.

Rail trackage on short line railroads may also be owned by one entity, either public or private, but operated by another through an operational lease. For example, there are large holding companies who own many short line railroads in Texas, such as Genesee & Wyoming, Watco, and OmniTRAX. These holding companies and their respective operations in Texas are described below.

Figure A-4 identifies the networks of the state's Class III railroads described in this section, and also identifies non-operating railroad owners.

Figure A-4: Class III Railroads in Texas



Each of the railroads identified above are described in this section.

Watco Companies

Watco Companies, LLC, is a Pittsburg, Kansas, based transportation company providing mechanical, transportation, and terminal and port services solutions for railroad customers throughout North America and Australia. Watco is the owner of Watco Transportation Services, LLC, one of the largest short line railroad holding companies in the U.S. with 32 short line railroads operating on more than 5,100 miles of track, as well as 32 industrial contract switching locations. The Terminal and Port Services division currently manages 87 terminals, nine warehouses and two port locations throughout the U.S.

The short line railroads described below are owned by Watco.

Austin Western Railroad (AWRR)

The Austin Western Railroad (AWRR) operates 183.80 miles of track from Llano, Texas to Giddings, Texas. The line dates back to 1871 when the Houston and Texas Central Railroad built the Giddings to Austin line. The AWRR interchanges with the UP at McNeil and Elgin, Texas and moves nearly 60,000 carloads annually. Primarily shipping aggregate, other commodities hauled by the AWRR include plastic pellets, animal products, and recycling. Capital Metropolitan Transportation Authority began commuter service on portions of this line in March of 2010. For further information, visit: https://www.watco.com/service/rail/austin-western-railroad-awrr/.

Lubbock and Western Railway (LBWR)

Lubbock and Western Railway (LBWR) is a 147-mile railroad in two segments operating from Lubbock to Seagraves and Whiteface, Texas and from Plainview to Dimmit, Texas carrying frac sand, chemicals, fertilizer, grain, animal feed, and oil. For further information, visit: https://www.watco.com/service/rail/lubbock-and-western-railroad-lbwr/.

Pecos Valley Southern Railway (PVS)

The Pecos Valley Southern Railway (PVS)has been in continuous operation since 1910 and today operates about 23 miles of track between Saragosa and Pecos, Texas, where it has an interchange with UP. PVS's primary sources of traffic are aggregates and crude oil. For further information, visit:https://www.watco.com/service/rail/pecos-valley-southern-railway-pvs/.

San Antonio Central Railway (SAC)

The San Antonio Central Railroad (SAC) began operations September 1, 2012, and it operates within Port San Antonio's East Kelly Railport. Railport customers include warehousing, distribution, transloading, manufacturing, and trucking operations. The Railport is the only site inside San Antonio with available rail-served facilities and land sites with switching service off the BNSF and UP railroad lines. For further information, visit:https://www.watco.com/service/rail/san-antonio-central-railroad-sac/.

Texas & New Mexico Railway (TXN)

Located in the heart of the Permian Basin, the Texas & New Mexico Railway (TXN) operates 34 miles of track in Texas. The TXN interchanges with UP at Monahans, Texas and terminates at Lovington, New Mexico. The railroad primarily handles oilfield commodities such as drilling mud and hydrochloric acid, frac sand, pipe, and petroleum products including crude oil. In addition, TXN also ships iron and steel scrap. For further information, visit: https://www.watco.com/service/rail/texas-new-mexico-railway-txn/.

Texas Coastal Bend Railroad (TCBR)

The Texas Coastal Bend Railroad (TCBR) began operations August 3, 2022, serving the port of Corpus Christi. The railroad's network includes 63 miles of track, carrying grain and grain products, cement, coal, chemicals, steel, and plastics. The TCBR interchanges with BNSF, CPKC, and UP. For further information, visit: https://www.watco.com/service/rail/texas-coastal-bend-railroad-tcbr/.

Timber Rock Railroad (TIBR)

The Timber Rock Railroad (TIBR) has been in service since 1998. TIBR once operated 160 miles of trackage between Silsbee and Tenaha, Texas with a branch to Deridder, Louisiana. The railroad's network includes the approximately 42-mile line between Kirbyville, Texas and DeRidder, Louisiana (approximately 17 miles of which is located in Texas). Its traffic largely includes aggregates, lumber products, plastics, and fuel. For further information, visit: https://www.watco.com/service/rail/timber-rock-railroad-tibr/

Ironhorse Resources, Inc.

The short line railroads described below are owned by Ironhorse Resources, Inc. in Texas.

Gardendale Railroad (GDR)

Gardendale Railroad (GDR) originally began operations in 1990. In 1995, GDR discontinued operations on the line and abandoned 49 miles of the 50-mile branch line. In 2010, GDR welcomed its first business in 15 years. GDR has developed and runs a large rail industrial park near Cotulla, Texas comprising of over 250 acres. GDR has significant additional acreage to support continued development and growth. GDR primarily provides logistics services to support drilling activities in the Eagle Ford Shale. GDR now has over 33 miles of track with the ability to serve any industry located with GDR. For further information, visit: https://ironhorseresources.com/rail-lines/gardendale/.

Rio Valley Switching Company (RVSC)

The Rio Valley Switching Company (RVSC) serves Harlingen (where it has an interchange with UP), Mission, Edinburg, and Santa Rosa, Texas. RVSC operates about 70 miles of track. Its traffic includes sand, drilling fluids, barite, oil, and pipe. For further information, visit: https://ironhorseresources.com/rail-lines/rio-valley-switching/.

Southern Switching Company (SSC)

The Southern Switching Company (SSC) is a terminal railroad that operates just over 8.5 miles of track and serving the Abilene area, where it has a connection with UP. SSC's traffic consists of grain, animal feed, fertilizers, petroleum products, oil drilling inputs, construction materials, windmill machinery, scrap, corn sweetener, and lumber. For further information, visit: https://ironhorseresources.com/rail-lines/southern-switching/.

OmniTRAX, Inc. (OmniTRAX)

OmniTRAX, Inc. (OmniTRAX) is a private railroad and transportation management company with interests in railroads, terminals, ports, and industrial real estate. OmniTRAX operates a network of 27 regional and short line railroads that cover 13 states in the U.S. and two provinces in Canada. The company's railroads interchange with BNSF, UP,

Canadian National (CN), CSX Transportation (CSXT), Norfolk Southern (NS), and transports commodities within the agricultural, aggregate/industrial mineral, energy, food, crude oil, chemical, lumber, metal, petroleum, and plastic industries.

Through its affiliate, Quality Terminal Services, LLC, OmniTRAX also operates and manages terminal and intermodal facilities where services such as railcar switching, container handling, ramp/deramp and carrier management are provided.

The short line railroads described below are owned by OmniTRAX in Texas.

Brownsville & Rio Grande International Railroad (BRG)

The BRG operates 45 miles of railroad serving the Port of Brownsville. It currently has interchanges with three Class I railroads: UP, BNSF, and KCS de Mexico. BRG began operations in 1984 by acquiring former Texas and Pacific (MP) property handling a variety of products such as steel, agricultural products, food products, and general commodities. For further information, visit: https://omnitrax.com/brownsville-rio-grande/.

Panhandle Northern Railway (PNR)

The Panhandle Northern Railway (PNR) operates 31 miles of the former Atchinson, Topeka & Santa Fe Railroad between Panhandle and Borger, Texas. Its traffic currently consists of carbon black, liquid petroleum gas, chemicals, petroleum products, scrap metal, and fertilizer. For further information, visit: https://omnitrax.com/panhandle-northern-railroad/.

Tarantula Corporation

The Fort Worth & Western Railroad (FWWR) operates under its corporate parent company, Tarantula Corporation, based in Fort Worth, Texas.

Fort Worth & Western Railroad (FWWR)

The FWWR began in 1988 with the purchase of 6.25 miles of track from the former Burlington Northern Railroad through the west side of Fort Worth. Since then, FWWR had grown through the purchase and lease of track from Class I carriers, UP and BNSF. In June 2024, FWRR acquired the Texas Central Railroad (TEXC) from Birdsong Corp. Previously, FWWR had leased and operated the 26-mile line since December 1988.

Currently, the FWWR operates over 276 miles of track through eight counties in North Texas. FWWR has interchanges with both UP and BNSF in Fort Worth and BNSF in Brownwood, Texas. FWWR interchanges with CPKC through trackage rights with BNSF in Fort Worth and with TXPF at San Angelo Junction near Coleman, Texas. For further information, visit: https://www.fwwrNorth .net/.

Genesee & Wyoming (G&W)

G&W owns or leases 116 freight railroads worldwide with 111 short lines with more than 13,000 miles within 43 U.S. states. In Texas, G&W operates four freight railroad switching operations which interchange between the Class I railroads and two terminal railroads operating within an existing port authority.

Dallas, Garland & Northeastern Railroad (DGNO)

The Dallas, Garland & Northeastern Railroad (DGNO) is a complex switching terminal that started operations in 1992 and is made up of a conglomeration of spurs and industrial leads. DGNO operates 161 miles of track in the Dallas and North Dallas areas using a combination of owned and leased lines as well as trackage rights. The DGNO provides extensive switching service and line haul extensions between their interchange locations with BNSF, UP, and CPKC. For further information, visit: https://www.gwrr.com/dgno/.

Galveston Railroad (GVSR)

Acquired in 2005, the Galveston Railroad (GVSR) is a 39-mile short line freight railroad serving the Galveston Port Authority and interchanging with BNSF and UP. For further information, visit: https://www.gwrr.com/gvsr/.

Kiamichi Railroad (KRR)

The Kiamichi Railroad (KRR) is located in Texas, Oklahoma, and Arkansas for a total of 264 miles of track (30 miles in Texas) shipping coal, lumber, paper, chemicals, cement, pulpwood, feed and food products between five interchange locations. The KRR interchanges with BNSF, CPKC, and UP. For further information, visit: https://www.gwrr.com/krr/.

Point Comfort & Northern Railway (PCN)

The PCN was incorporated in 1948 and interchanges with UP while serving the Port of Port Lavaca – Point Comfort. The PCN provides unit train services, interplant switching, car washing, weighing and inspection and traffic coordination. PCN operates 19 miles of track, and in 2019, their primary customer, the ALCOA Point Comfort Refinery, shutdown operations. For further information, please visit the link here: https://www.gwrr.com/pcn/.

Texas Northeastern Railroad (TNER)

The Texas Northeastern Railroad (TNER) operates in Texas west of Bonham through Bells to Sherman and east from New Boston to Texarkana. The TNER interchanges with the BNSF, DGNO and UP. Major commodities for the TNER are coal, military equipment, wheat, and polyethylene with their largest customer being the Red River Army Depot located just west of Texarkana. For further information, visit: https://www.gwrr.com/tner/.

TNW Corporation

For more than three decades, TNW Corporation (TNW) has been a leader in the short line railroad industry and is the parent company of three short line railroads in Texas.

Texas, Gonzales & Northern Railway (TXGN)

The Texas, Gonzales & Northern Railway (TXGN) began operations in 1992 and operates on former Southern Pacific Railroad (SP) trackage between Harwood and Gonzales, Texas on a system that is approximately 79 miles in length. In 2023, TXGN opened a new interchange with UP in Gonzales. For further information, visit: https://www.tnwcorporation.com/txgn-railway.

Texas Rock Crusher Railway (TXR)

The Texas Rock Crusher Railway (TXR) serves the Brownwood area on over 6 miles of former Santa Fe industrial trackage. TXR began operations in 1998 and serves the Camp Bowie Industrial Area. Services include rail transport, storage, and operations and logistics support. For further information, visit: https://www.tnwcorporation.com/txr-railway.

Texas North Western Railway (TXNW)

The Texas North Western Railway (TXNW) dates back to 1982 when it took over trackage originally owned by the Chicago, Rock Island & Pacific (Rock Island). TXNW's operates the largest privately owned railcar storage facility with 151 miles of storage and loop track near Sunray, Texas. Services include transloading, warehousing, railcar and product storage, and switching. For further information, visit: https://www.tnwcorporation.com/txnw-railway.

Patriot Rail

Patriot Rail operates over 30 regional short line railroads with more than 1,200 total rail miles across the U.S. In Texas, Patriot Rail owns one short line railroad.

Temple & Central Texas Railway (TC)

Temple & Central Texas Railway (TC) operates over 10 miles of rail line in the Central Pointe Rail Park located in Temple, Texas. The City of Temple awarded TC an exclusive long-term license agreement to provide rail switching and other rail- related services to customers at Central Pointe Rail Park. TC interchanges traffic with BNSF at Temple. For further information, visit: https://patriotrail.com/rail/temple-central-texas-railway-tc/.

Jaguar Transport Holdings (Jaguar)

Established in 2018, Jaguar Transport Holdings provides trucking, warehousing, rail, and transloading services. Jaguar operates eight short line railroads in the U.S., of which one is located in Texas.

Texas & Eastern Railroad (TSR)

Acquired by Jaguar Transport Holdings in 2020, the Texas & Eastern Railroad (TSR) operates freight service from Palestine to Rusk, Texas on leased track from the Texas State Railroad Authority. TSR interchanges with UP at Palestine. Traffic consists of chemicals, construction aggregates, and industrial products. For further information, visit: https://jag-transport.com/texas-and-eastern-railroad/.

Port Terminal Railroad Association (PTRA)

The Port Terminal Railroad Association (PTRA) is an association of the Port of Houston Authority and the three Class I railroads operating within Texas – UP, BNSF, and CPKC. The PTRA infrastructure consists of a total yard capacity of 5,000 railcars, with a daily spot/pull rate of 2,500 industrial cars. The PTRA straddles both sides of the Houston Ship Channel and maintains 185 miles of track with 20 bridges while serving 226 local customers from six serving yards.

- PTRA North Yard – six receiving/departure tracks with a capacity of 415 railcars and 46 classification tracks with a capacity of 1,200 railcars – Direct interchange with BNSF, UP, and CPKC.
- PTRA Storage Yard – 19 classification tracks with a capacity of 800 railcars – Direct interchange with UP.
- PTRA American Yard – 10 classification tracks with a capacity of 400 railcars – Direct interchange with industrial customers.
- PTRA Penn City Yard – three tracks with a capacity of 120 railcars – Direct interchange with industrial customers.
- PTRA Manchester Yard – 26 classification tracks with a capacity of 800 railcars – Direct interchange with UP and BNSF.
- PTRA Pasadena Yard – 15 classification tracks with a capacity of 700 railcars – Direct interchange with UP and BNSF

Other Class III Railroads

Other Class III railroads operate in Texas that are not associated with larger holding companies and are described as follows:

Alamo Gulf Coat Railroad (AGCR)

The Alamo Gulf Coast Railroad (AGCR) is owned by Martin Marietta Materials and consists of a line that is just 3.5 miles in length near the town of Beckman, Texas. AGCR primarily transports aggregates and began operations in 1996 over former SP property. For further information, visit: https://www.martinmarietta.com/locations/southwest/central-texas-district/beckmann-quarry.

Alamo North Texas Railroad (ANTR)

This short line is a switching and terminal railroad, and operates approximately 0 miles of track in Texas. The Alamo Gulf Coast Railroad Company is owned by Martin Marietta Materials Southwest, Inc. (99.5%) and other individuals (0.5%).

Angelina & Neches River Railroad (ANR)

The Angelina & Neches River Railroad (ANR) is a historic short line that traces its roots back to 1900 where it served the timber industry. ANR currently operates 12 miles of main line trackage and 28 miles total radiating away from Lufkin, Texas. This includes the West Lufkin Branch, Clawson Branch, and its main line heading east. ANR's traffic currently includes newsprint, ground-wood paper, lumber, chemicals, scrap metal, sugar, corn syrup, grocery products, clay, aggregates, and industrial products. For further information, visit: https://www.anrrr.com/.

Big Spring Rail System (BSR)

The Big Spring Rail System (BSR) maintains and operates 3.3 miles of rail line in Howard County, Texas, over trackage owned by the City of Big Spring, Texas. Big Spring Rail is headquartered in Glen Mills, Pennsylvania and is leasing the line from the City. BSR interchanges traffic with UP just west of its Big Spring Yard and extends southward from the UP Toyah Subdivision. For further information, visit: https://bigspringrailsystem.com/home.

Blacklands Railroad (BLR)

Recently acquired by Public Werks, Inc., the Blacklands Railroad (BLR) first began service in 1999 and currently operates eight miles of former Cotton Belt property between Mt. Pleasant and Winfield, Texas. BLR handles several commodities and also offers transload services. For further information, visit: https://www.blacklandsrailroad.com/blacklands-railroad.

Border Pacific Railroad (BOP)

The Border Pacific Railroad (BOP) began service in 1984 and operates around 32 miles of former Missouri Pacific Railroad (MP) trackage between Mission and Rio Grande City, Texas. Its traffic currently includes sand and crushed gravel aggregate. For further information, visit: https://borderpacificrailroad.com/.

Georgetown Railroad (GRR)

The original Georgetown Railroad (GRR) dates back to 1878, running 10 miles between Georgetown and Round Rock, Texas. It was later acquired by the International-Great Northern Railroad, which went on to become part of MP. In 1959, eight miles of the MP's old Georgetown Branch was sold to a new short line the Georgetown Railroad Company. Today the operation owns about 23 miles of track serving communities such as Kerr, Granger, Belton, and Smith, Texas. GRR interchanges with UP in Granger and both UP and BNSF in Kerr and hauls around 7,000 carloads annually. GRR traffic includes crushed stone, lumber, and building products. For further information, visit: http://www.intra-focus.com/GTRR/EFE777FD-65BE-CC3C-1EB69C72FC428CE4.htm.

Gulf Coast Switching, LLC (GCS)

Gulf Coast Switching Company, LLC (GCS) is an affiliate of the short line holding Anacostia Rail Holdings and provides contract rail switching services and is owned by Anacostia Rail Holdings. On October 1, 2008, the company began switching and track maintenance services for UP at Robinson Yard at Dayton, Texas and in October 2018 began switching and track maintenance services for UP at Angleton Yard at Angleton, Texas. For further information, visit: https://www.anacostia.com/.

Henderson Overton Branch (HOB)

The Henderson Overton Branch (HOB) operates 14 miles from Overton to Henderson, Texas. HOB is owned by Blacklands Railroad. HOB serves as the rail carrier for the Rusk County Rural Rail Transportation District, which owns all rights to the corridor. The primary commodities are lumber, asphalt, aggregate, and chemicals. For further information, visit: https://www.blacklandsrailroad.com/henderson-overton-branch.

Hondo Railway (HRR)

The Hondo Railway (HRR) operates about five miles of track near San Antonio, Texas and has been in service since 2006. HRR's traffic base currently consists of ethanol, food and feed products, and a variety of industrial products. The short line also offers transload services. In August 2024, Pinsly Railroad Company announced the acquisition of Hondo Railway. This agreement is subject to regulatory approval. For further information, visit: https://hondorailway.com/.

LaSalle Railway (LSRY)

The LaSalle Railway (LSRY) provides railway and transloading services in La Salle and Webb Counties in Texas. This switching and terminal railroad has direct access connection with UP. For further information, visit: https://lasallerailway.com/.

Moscow, Camden & San Augustine Railroad (MCSA)

The Moscow, Camden & San Augustine Railroad (MCSA) dates back to 1898 to serve lumber interests owned by the W. T. Carter & Brother Lumber Company. MCSA was a common carrier offering both freight and passenger service, eventually operating between Moscow to Camden, Texas. Today, MCSA continues to operate this trackage, now owned by Georgia-Pacific, and still handles primarily forest products including outbound plywood, lumber, and other freight. For further information, visit: https://www.gp.com/.

Orange Port Terminal Railway (OPT)

Owned by Lone Star Locomotive Leasing, the Orange Port Terminal Railway (OPT) is a terminal railroad that operates 1.8 miles of track formerly owned by SP and began service in 1995. For further information, visit: https://superiorlocomotiverepair.com/orangeport/.

Plainsman Switching Company (PSC)

The Plainsman Switching Company (PSC), a switch carrier, is a short line railroad located in Lubbock, Texas, and interchanges with UP and BNSF in downtown Lubbock. PSC operates 18 miles of track within the city of Lubbock and serves a variety of customers, shipping and receiving commodities such as grain, chemicals, cotton seed, cotton seed oil, specialty sands, non-perishable food items, and lumber. PSC handles transloading for a variety of commodities including windmill components and provides short-term warehousing. For further information, visit: https://pycoindustriesinc.com/.

R.J. Corman – Texas Lines (RJCD)

Owned by R.J. Corman Railroad Group, the R.J. Corman – Texas Lines (RJCD), formerly known as the Texas South-Eastern Railroad until 2014, operates on 13.1 miles of track and interchanges with UP at Diboll, Texas. Traffic transported includes lumber, plastic, frac sand, molasses, urea and other chemicals. For further information, visit: https://www.rjcorman.com/companies/railroad-company/our-short-lines/texas-lines-rjcd.

Sabine River & Northern Railroad (SRN)

International Paper owns the Sabine River & Northern Railroad (SRN) and operates about 40 miles of track on two lines serving Bessmay, Echo, Buna, and Evadale, Texas. The trackage was built in the mid-1960s to serve a linerboard mill. Today, the future of SRN is unknown, as its primary customer, the International Paper Plant in Orange, Texas, shutdown in 2023. For further information, visit: https://www.internationalpaper.com/N/A.

San Jacinto Transportation Company (SJTC)

Located in Houston, SJTC operates 6 miles of existing rail throughout the San Jacinto River and Rail Park, although currently there are no rail operations at the facility. SJTC has access to both UP and BNSF. SJTC is owned by SJRE

Railroad Series and is being overseen by directors of the Big Spring Rail System. For further information, visit: https://www.sanjacintoriverandrail.com/.

South Plains Lamesa Railroad (SLAL)

The South Plains Lamesa Railroad (SLAL) is small short line that operates in the Lubbock, Texas area providing mostly switching and terminal services. SLAL has been in operation since 1993 and also offers railcar storage and transload services. For further information, visit: https://splrr.com/.

Southwest Gulf Railroad (SGRR)

Incorporated in 2003, Southwest Gulf Railroad (SGRR) is a subsidiary of Vulcan Materials Company, LLC (the largest producer of construction aggregates in the U.S.) and a major producer of other construction materials. In 2008, the U.S. Surface Transportation Board (STB) granted SGRR the authority to build and operate The Medina Line, a 12-mile common carrier railroad near Dunlay, Texas. SGRR has access to both BNSF and UP. Operations began in 2019. For further information, visit: https://sgrr.com/.

Texas Central Business Lines (TCB)

This 5-mile terminal railroad, Texas Central Business Lines (TCB), serves the industries of the Midlothian area and connects with both UP and BNSF. TCB's traffic consists of autos and trucks, steel products, and cement. For further information, visit: https://www.tcblines.com/.

Texas City Terminal Railway (TCT)

The Texas City Terminal Railway (TCT) is a switching and terminal railroad at the Port of Texas City with 32 miles of track. Traffic includes hazardous, chemical, and petroleum products. TCT connects with UP and BNSF at Texas City. For further information, visit: https://tctrr.com/home/tctrr/.

Texas & Northern Railway (TN)

Transtar owns the Texas & Northern Railway (TN) and operates a 7-mile route with 32 miles of car storage capacity near Lone Star, Texas. TN currently interchanges with CPKC at Veals Yard. The railroad began operations in 1948 to serve steel mills, but in 2020, the Lone Star Tubular plant was put on indefinite idle. Primary operations now include transloading and car storage. For further information, visit: https://transtarrail.com/our-locations/texas-northern-railway-company/.

Texas & Oklahoma Railroad (TXOR)

The Texas & Oklahoma Railroad (TXOR) owns and operates an 18-mile railroad line from Shaufler to Maryneal, Texas and crosses approximately five miles of BNSF track to interchange at the Sweetwater Yard. TXOR's primary commodity is cement from the plant in Maryneal.

Texas Pacifico Transportation LTD (TXPF)

TXPF operates freight service over 391 miles of state-owned trackage (South Orient Rail Line) in western Texas. The line runs from San Angelo Junction to Alpine Junction, Texas. TXPF has trackage rights over UP between Alpine Junction to Paisano Junction, and operates from Paisano Junction to International Bridge near Presidio, Texas. TXPF

interchanges with Ferromex (FXE) in Presidio and BNSF and FWWR in San Angelo. For further information, visit: http://www.texaspacifico.com/.

Western Rail Road (WRRC)

As a subsidiary to Cemex US, Western Rail Road (WRRC) operates a 1.9-mile railroad line extending from a connection with UP at Dittlinger to Stonetown, Texas. Traffic is crushed rock and other aggregates and cement. For further information, visit: https://www.cemexusa.com/-/new-braunfels-balcones-cement-plant.

Wichita, Tillman & Jackson Railway (WTJR)

The Wichita, Tillman & Jackson Railway Company (WTJR) is currently owned by the Rio Grande Pacific Corporation, running on disconnected trackage in Texas (18 miles) and Oklahoma once owned by the Rock Island and UP. WTJR has been in service since 1991 and interchanges with BNSF and UP at Wichita Falls, Texas. Shipments are primarily agricultural products, glass materials, steel scrap, and fertilizer. For further information, visit: https://rgpc.com/railroads/wichita-tillman-jackson-railway/.

State of Texas

The State of Texas, acting by and through the Texas Department of Transportation (TxDOT), owns several rail lines in the state on which railroads operate. Brief descriptions of these railroads are provided below.

South Orient Rail Line (SORR)

The South Orient Rail Line (SORR) is a state-owned line that extends approximately 391 miles from San Angelo Junction (in Coleman County, five miles southwest of Coleman) through San Angelo to Presidio at the Texas-Mexico border.[4] It was constructed to interchange with Ferromex at Presidio. The Presidio-Ojinaga International Rail Bridge was reconstructed in 2021, but the reopening has been delayed due to challenges in constructing the Customs and Border Patrol inspection station. The inspection station is expected to be completed in the summer of 2025. The line also interchanges with BNSF and FWWR at San Angelo Junction. Since 2001, TXPF operates and maintains the SORR under a lease and operating agreement with TxDOT.

Bonham Subdivision

In 2006, TxDOT entered into a lease agreement with Fannin County Rural Rail Transportation District (FRRTD) to operate on the state-owned rail line located in Lamar and Fannin Counties that extends from Mile Post 94.0 to Mile Post 127.5 on the Bonham Subdivision—a total of approximately 33.5 miles.[5] Currently, there is no service on the line and FRRTD is working to identify potential funding sources for rehabilitation of the line and possible operators that it would contract for freight rail service.

Northeast Texas Rural Rail Transportation District

The Northeast Texas Rural Rail Transportation District (NETEX) secured a legislative appropriation rider that granted it funds from state general revenue, through TxDOT, for the purchase and operation of the rail line from a point west of

4 https://ftp.txdot.gov/pub/txdot/move-texas-freight/2022-south-orient-rail-annual-report.pdf.

5 https://ftp.txdot.gov/pub/txdot-info/rail/rural/fannin/lease.pdf.

Sulphur Springs at Mile Post 524.0 to a point west of Greenville at Mile Post 555.0.[6] In 2020, NETEX selected Northeast Texas Connector (NETC), which is owned by Freedom Rail Group to serve as the operator of the line. Since being selected, Freedom Rail Group has been working to upgrade the track and infrastructure to FRA Class 2 standards by 2027. Freedom Rail Group moves commodities such as agriculture, grain, steel, cement, lumber, recycling, aluminum, and structural steel.

Texas Rural Rail Transportation Districts

Rural Rail Transportation Districts (RRTDs) in Texas are formed to prevent the loss of rural rail lines that have been abandoned by rail companies or to maintain the former rail right-of-way for future transportation uses. As of 2019, the number of known RRTDs in the state is 43. Of the many roles that a RRTD performs, one of the most important authorities it possesses is the ability to own railroad right-of-way or infrastructure. Many RRTDs have used this authority to purchase railroad right-of-way that is threatened with abandonment or otherwise preserve right of way for future use.

Some examples of RRTD ownership or leasing of railroad right-of-way and infrastructure in Texas include:[7]

- FRRTD finalized two leases for separate segments of rail line connecting Bonham and Paris, Texas totaling approximately 35 miles. The leases were executed through a series of agreements among the RRTD, TxDOT (33.5 miles in 2006), and the Bonham Economic Development Corporation (BEDCO) (1.28 miles in 2012).
- In May 2010, the Rusk County RRTD purchased an approximately 14-mile rail line known as the Henderson-Overton Branch, which runs between Henderson and Overton, Texas. UP had petitioned to abandon the line before the RRTD purchased the line for $1.026 million. Freight service was restored to the line through a short line operator (BLR) in June 2010.
- The Top of Texas RRTD was formed in 2006 to prevent the abandonment of a railroad line through Hansford, Lipscomb and Ochiltree Counties. The RRTD negotiated a deal to gain fee-simple ownership of the 90-mile right-of-way, while the former railroad owner salvaged the rail materials. The agreement allowed the businesses along the line to retain their leases and the RRTD collects lease payments as income. The RRTD board is actively marketing the right-of-way for electric transmission lines or other opportunities.

Greens Port Industrial Park

Watco operates rail service at Greens Port Industrial Park located on 735 acres on the Houston Ship Channel in Harris County, Texas. Greens Port is one of the largest private multi-tenanted industrial parks in the Gulf Coast market. This industrial park offers deep water and barge docks along the Houston Ship Channel. Greens Port provides approximately three million square feet of indoor warehousing that feature large bay widths, numerous cranes ranging from five to 125-ton capacity, the ability to clear heights ranging from 20 to 45 feet, and heavy floor loading capacity. Direct rail service to buildings and storage yards is also available.

6 https://ftp.txdot.gov/pub/txdot-info/rail/rural/netex/funding.pdf.

7 http://ftp.dot.state.tx.us/pub/txdot-info/rail/rural/rrtd-update.pdf.

Watco Terminal Services

Watco's Terminal and Port Services (WTPS) is the rail centered transloading division that brings together all aspects of terminal or port operations to better serve the needs of their customers. Watco currently provides terminal services at the following locations:

- Coady Transload Terminal, Baytown, Texas
- Greens Port Rail Terminal, Houston, Texas
- Houston Terminals, Houston, Texas
- Port Arthur Dedicated Terminal, Port Arthur, Texas
- Port 10/Watco Rail Terminal, Baytown, Texas
- Refugio Transload Terminal, Refugio, Texas

Major Railroad Yards and Facilities in Texas

The section identifies the location of known major Class I and III railroad yards and facilities in Texas, including the following:

- Yard/Terminal – Locations with yards where railcars are switched, classified, and stored and where trains are built and staged. Principal rail yards are located throughout the state.
- Intermodal Facility – Location where the transfer of trailers and containers between road and rail modes occurs.
- Transload Facility – Other "intermodal facility location where freight is transferred between two modes of transportation. There are several transload facilities on the Texas rail network. Commonly transloaded commodities include finished and unfinished goods, food and beverage products, lumber, metals, paper, building materials, and other packaged bulk commodities.
- Freight Car Repair Facilities – Locations where railroad locomotives may be repaired and/or serviced (which may include fueling) in Texas.
- Locomotive Repair and Servicing Facilities – Locations where railroad locomotives may be repaired and/or serviced (which may include fueling) in Texas.

Class I Railroads

Major freight yards and facilities of Class I railroads in Texas, to the extent known through coordination with the state's railroads, are shown in Table A-12.

Table A-12: Class I Railroads Major Freight Rail Yards and Facilities in Texas

Railroad	Yard/Terminal	Mechanical Facility	Automotive Facility	Unit Grain Loading Facility	Aggregate Loading Facility	Transload Facility
BNSF Railway (BNSF)	X	X	X	X	X	X
Canadian Pacific Kansas City (CPKC)	X		X	X		X
Union Pacific Railroad (UP)	X	X	X	X	X	X

Source: BNSF, CPKC, UP, TxDOT

Rail Intermodal Facilities

Intermodal facilities – In the context of railroad services, "intermodal" generally refers to trains that carry shipping containers between rail terminals where the shipping containers then move by truck between the rail terminals and shipper locations and/or by vessel between ports. The containers are interchanged between the various modes of transportation at the terminals by lifting equipment. Within the intermodal service categories, Class I railroads typically offer several tiers of service, with double stack containers being premium service, and containers or trailers on flatcars loaded at transload facilities being lower tier intermodal service.

Intermodal is the fastest growing rail service and competes most directly with trucking service, particularly long-haul trucking. Intermodal is usually the fastest service and is, to some extent, the most resource-intensive. Railroads must commit to filling trainloads of intermodal boxes and adhere to strict schedules. In addition, the terminals are expensive to build and operate.

Major intermodal rail facilities are located in Amarillo, El Paso, Dallas, Fort Worth, Houston, and Laredo with additional facilities located in smaller areas such as Donna, Rosenberg, and Wylie. In total, Texas is home to approximately 20 intermodal rail facilities, concentrated mostly in the eastern portion of the state. BNSF and UP also operate intermodal facilities at the Port of Houston, which is the number one seaport by volume (tonnage) in the U.S. The state's two intermodal logistics facilities, Alliance and Port San Antonio, have direct access to BNSF and UP. Intermodal facilities for CPKC are located primarily in the Dallas/Fort Worth area and Laredo.

BNSF operates four automotive and two intermodal facilities within Texas. CPKC operates one automotive and three intermodal facilities within Texas. UP also operates four automotive and eight intermodal facilities within Texas. Similar facilities also exist in adjacent states (e.g., Arkansas, Louisiana, Oklahoma, and New Mexico). Below is a summary of facilities and their location by railroad.

Rail Intermodal Facilities In Texas

- BNSF Railway[8]
  - El Paso Intermodal Facility (El Paso, Texas)
  - Alliance Intermodal Facility (Haslet, Texas)
  - Houston (Pearland) Intermodal Facility (Houston, Texas)
- CPKC
  - Kendleton (Beasley, Texas)
  - Wiley (Wiley, Texas)
  - Laredo (Laredo, Texas)
- Union Pacific Railway[9]
  - Barbours Cut Intermodal Facility (La Porte, Texas)
  - Dallas Intermodal Facility (Mesquite, Texas)
  - Dallas Intermodal Terminal (Hutchins, Texas)
  - Houston Intermodal Terminal (Houston, Texas)
  - Laredo Intermodal Terminal (Laredo, Texas)
  - Rio Valley Intermodal Terminal (Donna, Texas)
  - San Antonio Intermodal Terminal (San Antonio, Texas)

Rail Automotive Facilities In Texas

- BNSF Railway[10]
  - Alliance Vehicle Facility (Fort Worth, Texas)
  - Amarillo Vehicle Facility (Amarillo, Texas)
  - Pearland Vehicle Facility (Houston, Texas)
  - MidTex Vehicle Facility (Midlothian, Texas)
- CPKC[11]
  - Kendleton (Beasley, Texas)
  - Wylie (Wyle, Texas)
- Union Pacific Railway[12]
  - Arlington, Texas
  - Mesquite, Texas
  - San Antonio (Kirby), Texas
  - Westfield, Texas

[8] BNSF Railway, *Facility Listings,* https://www.bnsf.com/ship-with-bnsf/support-services/facility-listings.html

9 Union Pacific Railroad, Intermodal Facilities Map & Profiles, https://www.up.com/customers/premium/intmap/index.htm.

10 Ibid

11 CPKC, Automotive, https://www.cpkcr.com/en/our-markets/automotive.

12 Union Pacific Railroad, Automotive Facilities, https://www.up.com/customers/premium/facility_profiles/index.htm.

Rail Port and Border Crossings in Texas

Railroads serve as important connections to seaports and land Ports-of-Entry (POE). Much of the freight carried by rail comes into Texas through these POEs. As rail is often utilized for shipment of bulk goods and is not typically a suitable, direct-to-consumer mode of transport, the ability of rail to transport goods and commodities from these locations to intermodal terminals, transshipment terminals, and warehouse and distribution centers are integral to the supply chain.

Ports with known connections to the Texas rail network are identified and described in Table A-13. Railroad connections, draft (water) depth, and commodity types typically handled by each facility, to the extent known, are included in this summary.

Table A-13: Texas Seaports with Connections to the Texas Rail Network

Port	Railroad Connection(s)	Draft (Water) Depth	Major Commodities Exports	Major Commodities Imports
Beaumont	BNSF, CPKC, UP	40 ft. (current), 48 ft. (authorized)	Petroleum and its Products, Fertilizers and Chemicals, Food and Agricultural Products, Crude Materials, Primary Manufactured goods Manufactured goods	Petroleum and its Products, Crude Materials, Fertilizers and Chemicals, All Manufactured Equipment, Machinery and Products, Primary Manufactured goods
Brownsville	BNSF, BRG, CPKC, UP	42 ft. (current), 52 ft. (authorized)	Refined Petroleum Products; Paraffin Wax; Latex, Steel and Other Metals, Irone Ores and Minerals, Aggregates and Cement, Wind Energy Components, Grain	Refined Petroleum Products; Paraffin Wax; Latex, Steel and Other Metals, Irone Ores and Minerals, Aggregates and Cement, Wind Energy Components, Sugar
Corpus Christi	BNSF, CPKC, UP	47 ft. (current), 54 ft. (authorized)	Petroleum and its Products, Fertilizers and Chemicals, Food and Agricultural Products, Primary Manufactured Goods, Crude Materials	Petroleum and its Products, Crude Materials, Fertilizers and Chemicals, Primary Manufactured Goods, All Manufactured Equipment, Machinery and Products
Freeport	UP	46-48 ft. (current), 51-56 ft. (authorized)	Petroleum and its Products, Fertilizers and Chemicals, All Manufactured Equipment, Machinery and Products, Food and Agricultural Products, Crude Materials	Petroleum and its Products, Crude Materials, Primary Manufactured Goods, Food and Agricultural Products, All Manufactured Equipment, Machinery and Products

Port	Railroad Connection(s)	Draft (Water) Depth	Major Commodities Exports	Major Commodities Imports
Galveston	BNSF and UP	41-46 ft. (current), 41-46 ft. (authorized)	Petroleum and its Products, Fertilizers and Chemicals, Food and Agricultural Products, Crude Materials, All Manufactured Equipment, Machinery and Products	Fertilizers and Chemicals, All Manufactured Equipment, Machinery and Products, Food and Agricultural Products, Petroleum and its Products, Crude Materials
Harlingen	UP	12 feet	Sugar, Agricultural	Refined Petroleum, Aggregates, Fertilizer
Houston	BNSF, CPKC, UP	37.5-46.5 ft. (current), 41.5-46.5 ft. (authorized)	Resins & Plastics, Chemicals and Minerals, Petroleum and Petroleum Products, Automotive, Food & Drink	Hardware and Construction Materials, Machinery, Appliances and Electronics, Steel and Metals, Furniture, Retail Consumer Goods
Orange	UP	23 ft. (current), 30 ft. (authorized)	Timber, plastics, large export commodities	N/A
Port Arthur	CPKC, UP	40 ft. (current), 48ft. (authorized)	Cargo and petrochemicals	N/A
Port Lavaca-Point Comfort	Port Lavaca via UP, Point Comfort via Point Comfort & Northern	36 feet	N/A	N/A
Texas City	BNSF and UP	46 ft. (current), 50 ft. (authorized)	Petroleum and its Products, Fertilizers and Chemicals	Petroleum and its Product, Fertilizers and Chemicals, All Manufactured Equipment, Machinery and Products
Victoria	BNSF and UP	12 feet	N/A	N/A

Source: TxDOT – Texas Port Profiles (2022), https://ftp.txdot.gov/pub/txdot-info/mrt/final-port-profiles-2022.pdf.

Efficient customs processing at border entry ports is critical to maintaining the flow of goods at rail crossings. Texas is home to five of the eight U.S. rail border crossings with Mexico, located in Brownsville (West Rail), Laredo (Texas Mexican Railway International Bridge), Eagle Pass (Camino Real International Bridge), El Paso (Bridge of the Americas, which is two separate structures), and Presidio (Presidio-Ojinaga International Bridge).

TxDOT owns the South Orient Rail Line (SORR), which once connected the U.S. to Mexico via the Presidio-Ojinaga international rail bridge in Presidio, Texas. Portions of the railroad bridge were severely damaged by fire in 2008 and 2009 leading to the closure of the railroad-border crossing. The short line funded the reconstruction of the railroad bridge, which is scheduled to be reopened by December 2025.

Table A-14: Active Texas Land Ports of Entry with Rail Connections

Railroad	El Paso	Eagle Pass	Laredo	Brownsville	Presidio
BNSF	X	X*		X*	
CPKC			X		
UP	X	X	X	X	
TXPF					X**

*Note: *via agreement with UP, ** Not currently active*

Source: TxDOT


Houston, TX
SPRING
DAYTON
EUREKA YARD
HOUSTON
WEST JCT.
ROSENBERG
PIERCE JCT.
T&NO JCT.
ARCOLA
ALGOA
GALVESTON
BELT JCT.
Dallas/Ft. Worth, TX
TEXAS ELECT
LEWISVILLE
HEBRON
PLANO
WYLIE
CARROLLTON
GARLAND
FT. WORTH
DALLAS
CRESSON
MIDLOTHIAN
WAXAHACHIE
GARRETT
CLEBURNE
ALVARADO
Beaumont/Port Arthur, TX
BEAUMONT
ORANGE
PORT OF BEAUMONT
PORT NECHES
PORT ARTHUR
PORT OF PORT ARTHUR
NM
OK
AR
LA
TEXAS
MEXICO
WOODWARD
ENID
PAWNEE
TULSA
STRATFORD
DALHART
ETTER
SHATTUCK
OKEENE
PERRY
STILLWATER
SAPULPA
OKAY
BORGER
EL RENO
CLINTON
PAMPA
PANHANDLE
ERICK
HOLDENVILLE
OKLAHOMA CITY
TUCUMCARI
AMARILLO
CANYON
FORT SILL
SNYDER
ALTUS
LAWTON
CHICKASHA
MCALESTER AAP
MCALESTER
CLOVIS
TEXICO
DIMMITT
PLAINVIEW
FREDERICK
ARDMORE
WAURIKA
DURANT
HUGO
QUANAH
CHILLICOTHE
WICHITA FALLS
DENISON
FORDYCE
HOPE
MCGEHEE
ASHDOWN
CAMDEN
TEXARKANA
RED RIVER AD
PARIS
WHITEFACE
LUBBOCK
BOWIE
SANGER
DENTON
MT. PLEASANT
JEFFERSON
SHREVEPORT
MCNEIL
LOVINGTON
SEAGRAVES
SEE INSERT
FT. WORTH
GREENVILLE
BIG SANDY
GIBSLAND
TALLULAH
MONROE
DALLAS
MINEOLA
TYLER
MARSHALL
LORDSBURG
DEMING
OROGRANDE
CARLSBAD
LOVING
EUNICE
SWEETWATER
ABILENE
BIG SPRING
MIDLAND
ODESSA
DUBLIN
BROWNWOOD
CORSICANA
ATHENS
LONGVIEW
TENAHA
FORT BLISS
EL PASO
PECOS
MONAHANS
SAN ANGELO
SAN ANGELO JCT.
FORT CAVAZOS
WACO
PALESTINE
LUFKIN
ALEXANDRIA
FORT JOHNSON
DAUBE JCT.
DERIDDER
BATON ROUGE
SIERRA BLANCA
SARAGOSA
BRADY
LOMETA
JEWETT
MOSCOW
KIRBYVILLE
BESSMAY
SILSBEE
DEQUINCY
EUNICE
LIVONIA
FORT STOCKTON
LLANO
TEMPLE
MILANO
HEARNE
NAVASOTA
DOBBIN
CONROE
IOWA
JCT.
LAFAYETTE
ALPINE
TAYLOR
CALDWELL
CLEVELAND
NEW IBERIA
AUSTIN
MCNEIL
SAN MARCOS
FLATONIA
SEALY
HOUSTON
BEAUMONT
LAKE CHARLES
PORT OF LAKE CHARLES
PRESIDIO
SAN ANTONIO
GALVESTON
SEE INSERT
DEL RIO
SPOFFORD
DUNLAY
CAMPBELLTON
VICTORIA
PLACEDO
ANGLETON
EAGLE PASS
BLOOMINGTON
POINT COMFORT
LONG MOTT
ALLENDE
SINTON
ROBSTOWN
PORT OF CORPUS CHRISTI
CORPUS CHRISTI
LAREDO
MONCLOVA
ESCALON
RIO GRANDE CITY
MCALLEN
HARLINGEN
BROWNSVILLE
BNSF
UP
CPKC
PNR
GNBC
FMRC
SLWC
AOK
KRR
LBWR
TXN
FWWR
DGNO
BLR
LAS
TXPF
PVS
CTXR
AWRR
TIBR
FXE
NDM
LFCD
TRE
DART
LNW
FP
NLA
ALM
Legend
STRACNET
Connector
Other Railroad
Defense Site
N
Map Prepared by:
Military Surface Deployment and Distribution Command
Transportation Engineering Agency (SDDCTEA)
Civil Rail Network Source:
US Department of Transportation
Federal Railroad Administration (FRA)
MILITARY SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND
TEA
Transportation Engineering Agency
UNITED STATES TRANSPORTATION COMMAND

2024 Texas Rail Plan: Appendix C

Economic Impact of Rail Transportation

Contents

2024 Texas Rail Plan: Appendix C .... Error! Bookmark not defined.

Economic Impact of Rail Transportation 1

Executive Summary 3

Introduction 5

Methodology, Data Sources, and Assumptions 5

Results 11

Summary of Impacts 13

Tables

Table C – 1: Freight Shipments Assessed in the Economic Impact Analysis 10

Table C – 2: Economic Impact of Rail Transportation Service, 2022 11

Table C – 3: Economic Impact of Rail Transportation Users, 2022 12

Table C – 4: Total Rail Transportation Impacts, 2022 13

Table C – 5: Texas and Rail-Related Economic Measures, 2022 13

Executive Summary

The economic impacts of rail transportation in Texas in 2022 were estimated using economic impact multipliers from the IMPLAN with input data and assumptions on:

- Freight movements, based on data derived from the STB 2022 Waybill Sample data of shipments originating in Texas as described in Chapter 2 of the Texas State Rail Plan.
- Values of commodity shipments extracted from the Federal Highway Administration's (FHWA's) Freight Analysis Framework (FAF) data base for rail shipments originating in Texas in 2022, converted to a value (2022 dollars) per ton.
- Rail transportation operations.

Impacts of the rail industry in Texas considered in this analysis stem from organizations providing freight and passenger transport services, as well as industries using rail freight services to trade goods (i.e., shippers of goods or commodities).

Impacts were estimated and present by activity (service provision and rail users), type (direct, indirect, induced, and total), and measure (employment, income, value added, and value added) for 2022 to provide an extensive review of how rail operations in Texas impact the State's economy. Table ES – 1 provides a summary of the economic impacts which include the following:

- **Output**: In terms of total revenue, the rail-related industries generated an estimated $220.2 billion in output, of which, $219.9 billion was contributed by freight rail operations and services.
- **Employment**: Rail transportation supported over 262,800 jobs directly through the provision of rail transportation services (both freight and passenger) and facilitation of operation of rail transportation users. If multiplier effects (indirect and induced) are included as well, rail transportation industry supported over 469,200 jobs.
- **Labor Income**: In total, the rail transportation industries supported $54.2 billion in earnings for more than 469,200 employees. These earnings include employee compensation and proprietary incomes.
- **Value Added**: The combined value-added impact of rail-related activity amounted to nearly $101.5 billion accounting for approximately 4.2% of Texas' Gross Domestic Product (GDP) in 2022.[1]
- **Tax**: Rail-related industries generated over $7.1 billion in government tax revenues, with majority these revenues attributable to freight rail operations and freight rail users.

[1] Based on a GDP of $2,402,137.2 million for Texas in 2022. U.S. Bureau of Economic Analysis, Gross Domestic Product: All Industry Total in Texas [TXNGSP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TXNGSP, September 5, 2024.

Table ES – 1: Economic Impacts for Rail Transportation in Texas

Impact Metric	Transportation Service Provision		Transportation Service Use	Total Transportation Service		Total Impact
	Freight	Passenger		Freight	Passenger	
Output ($M)						
Direct	$8,151.6	$121.9	$108,495.0	$116,646.6	$121.9	$116,768.5
Employment (Jobs)						
Direct	13,206	207	249,410	262,615	207	262,822
Labor Income ($M)						
Total	$4,508.0	$67.4	$49,653.1	$54,161.1	$67.4	$54,228.5
Value Added ($M)						
Direct	$4,049.8	$60.5	$43,437.3	$47,487.1	$60.5	$47,547.7
Total	$8,704.8	$130.1	$92,712.7	$101,417.5	$130.1	$101,547.7
Taxes ($M)						
Direct	$88.0	$1.3	$2,882.9	$2,971.0	$1.3	$2,972.3
Total	$548.7	$8.2	$6,589.3	$7,137.9	$8.2	$7,146.1

Note: All monetary values are in millions of 2022 dollars.

Introduction

Economic impacts of the rail transportation industry in Texas assessed in this analysis stems from (1) railroads providing freight and passenger rail services, and (2) industries using such services to trade or transport goods (i.e., the shippers of goods or commodities).

This document outlines the methodology of quantification of these impacts together with input data and results. The methodology represents an input-output approach that captures and quantifies the flow of goods and services (or expenditures) between various industries in the economy arising from technical requirements of one industry for inputs provided by another industry. These inter-industry requirements for input supplies and labor create rounds of expenditures and impacts that – when added throughout the economy – exceed the initial expenditure.

The analysis is implemented on the basis of STB 2022 Waybill Sample data of shipments originating in Texas and using the economic impact multipliers from the IMPLAN.[2]

The remainder of this document is organized as follows:

- Methodology, Data Sources, and Assumptions: Highlights the methodology used for the economic impact analysis (EIA), as well as the assumptions and the various data sources used in the analysis.
- Results: Presents the results of the EIA.
- Summary of Impacts: Summarizes the findings from the EIA.

Methodology, Data Sources, and Assumptions

Key Concepts and Modeling Tools

Economic impact analysis (or assessment) is a type of conceptual analysis that identifies and quantifies the economic activity that is generated or can be attributed and linked to an investment project, government policies, events, etc. being evaluated. These projects, policies, or events have some underlying change in the stream of expenditures in an economy and lead to a change in the demand for goods and services. This has implications on the number of jobs and other measures of economic activity in the local, regional, and national economy.

Traditionally, economic impact analysis involves the estimation of three distinct types of economic activity, commonly referred to as “direct impacts,” “indirect impacts,” and “induced impacts” that are attributable to an initial stream of incremental capital of operating expenditures.

These are defined as follows:

[2] IMPLAN (IMpact analysis for PLANning) is an economic impact modeling tool used for forecasting the effect of a given economic activity on the local, regional, and national economy. The activity is specified in terms of incremental expenditures related to the activity (e.g., revenue of the industry that receives the orders for tis goods and services, or number of workers that will be required to complete the order). The model is based on classic input-output modeling approaches combined with social accounting matrices and multiplier. IMPLAN has datasets for the geography analyzed, which may include the entire United States, a state, a county, a zip code area, or a combination of these areas, depending on the specific project and desired geographic area of impact assessment.

- **Direct impacts** refer to the initial economic effects occurring as the result of capital or operating expenditures directly related to the project, policy, or event being evaluated. Direct spending results in the employment of workers, business output, and sales of locally produced goods or services.
- **Indirect impacts** refer to the “spin-off” economic activities that result from purchases of production inputs, goods and services, by businesses that are impacted by the initial expenditures. The spending by the supplier firms on their labor, production inputs, goods and services that they require creates output of other firms further down the production chain, bringing about additional business output, employment, and earnings. The sum of these effects across the supply chain is the indirect impact.
- **Induced impacts** represent the increase in business output, employment, and earnings over and above the direct and indirect impacts, generated by re-spending of employment income derived from the direct and indirect employment. Induced impacts are thus changes in economic activity that are the result of personal (household) spending for goods and services by employees comprising the direct and indirect impacts.
- **Total economic impact** is the sum of the direct, indirect, and induced impacts for the activity being evaluated.

Each of the direct, indirect, and induced impacts defined is estimated in terms of the various measures of economic activity that include the following:

- **Output**: Is the total gross value of all business revenue. Output represents the total sum of all economic activity that has taken place in connection with it. This is the broadest measure of economic activity.
- **Employment**: The number of incremental jobs created as a result of all expenditures related to the activities evaluated.[3]
- **Labor Income**: The additional earnings that would be paid to above jobs/employees. These earnings include employee compensation and proprietary incomes. Specifically, employee compensation includes wages or salary payments, employee benefits, and employer paid payroll taxes. Meanwhile, proprietary incomes consists of payments received by self-employed individuals and unincorporated business owners.
- **Value Added**: The value added represents the unduplicated measure of the total value of economic activity. This is also sometimes referred to as the gross domestic product (GDP), the “value added” to the economy, or the value of output minus value of purchased goods and services used in the production process.
- **Taxes**: The government tax revenue associated with the economic activity taken place.

Indirect and induced impacts are often referred to as “multiplier effects,” since they increase the overall economic impacts of the original expenditure that initiated the rounds of spending and effects described above.

The above analysis is made operational via an input-output methodology and multipliers that capture and quantify the flow of goods and services between various industries in an economy arising from technical requirements of one industry for inputs produced by another industry (supply-purchase relationships).

Aggregate measures of the requirements of one industry from all other industries (per $1 of output) represent indirect multipliers. Own industry requirements for labor and operational profile (wages and salaries paid, use of production inputs) represent direct multipliers. Indirect multipliers can be used to estimate indirect impacts, direct multipliers can be used to estimate direct effects (or its missing components, e.g. employment from given expenditure amount).

[3] In economic impact analysis, employment impacts are typically estimated terms of job-years which expresses the number of jobs created multiplied by the length of time, in years, that they would last for. Example, 1 job-year is 1 job created for 1 year. For simplicity, we refer here to these impacts as employment, or jobs. They include both full time jobs and part-time jobs.

Induced impacts are estimated based on profile of consumer expenditures on goods and services, and the aggregate results of re-spending of labor income represent the induced multipliers which can be used in a similar way as indirect multipliers and direct multipliers.

Economic impacts of transportation include both impacts of transportation services and the choice of rail transportation made by users of these services themselves. That is, Texas economic impacts stemming from rail transportation are categorized into services provision and user impacts. Rail transportation services would be curtailed in the absence of rail activity (elimination of goods or passenger movements). Transportation user aspect focuses on the impacts pertaining to industries using freight rail to transport goods. The nature of these impacts is briefly discussed below:

- **Transportation Service Providers**: Impacts associated with the provision of rail transportation include a wide range of primarily modal transport activity, but also may include other support and administrative operations. In particular, these impacts reflect freight and passenger railroad operations.
- **Transportation Users (Freight Users)**: Impacts associated with shippers of freight and the industries that supply goods and services to them. Specifically, this reflects the impacts associated with shippers using freight rail for goods movement, except for the rail industry itself.
  - Rail users have several options available to transport freight and can substitute this service with other modes, such as truck or barge, if rail services were unavailable. However, the choice to use rail service to ship freight indicates cost and/or logistical advantages in a competitive marketplace. Loss of rail service could negatively affect its current users. In this sense, rail contributes to the vitality of the state economy and supports jobs and economic activity of its users involved in the production of goods shipped.
  - This analysis focuses on the impacts to shippers as captured by outbound freight that originated within Texas. Although freight receivers may also benefit by being able to obtain their orders by rail at a lower cost, including many production inputs and supplies, this impact is difficult to quantify without a risk of over-stating the impact. For example, the receivers of production supplies may then themselves ship final goods they produce by rail as well. The economic activity and contribution to the state economy corresponding to the production of those final goods will be accounted for under outbound freight. Including impact due to being able to obtain production supplies by rail as well carries a high risk of double counting as those supplies may be used to produce the goods already captured under the outbound freight.

The above analysis is implemented and estimated using economic impact multiplier from IMPLAN. These multipliers are widely used in economic impact modeling to forecast the effect of a given change in the economy's activity on the local, regional, and national economy.

The activity is specified in terms of incremental expenditures related to the activity, such as revenue of the industry that receives orders of its goods and services, or number of workers that will be required to complete the order. The multipliers are then applied for each of the metrics discussed above to calculate direct, indirect, and induced impacts, all in terms of business output, jobs, employment income, value-added, and taxes. The approach is based on classic input-output modeling principles. This analysis used the state-wide multipliers for Texas.

Estimation of economic impacts with IMPLAN multipliers involved the following key steps:

- **Step 1**: Identify the streams of revenues directly related to the activity being analyzed (i.e., freight shippers' sales by commodity) and classify them into industrial sectors.
- **Step 2**: Identify IMPLAN industries that most closely correspond to the industrial sectors of revenues listed in Step 1, based on the type and nature of commodities involved.
- **Step 3**: Compile multipliers by identified industries, match with streams of revenues, code all direct, indirect, and induced impacts.
- **Step 4**: Run model simulations and analyze results.

The specific data and methodological assumptions used develop the streams of expenditures generating economic impacts are discussed in the next section.

Data and Assumptions

Rail Service Provision

Estimation of economic impacts of passenger rail services in Texas are based on information on direct industry employment. Per Amtrak's fiscal year 2023 fact sheet outlining its contribution to Texas' economy, Amtrak employed 207 Texans in that year.[4]

Meanwhile, the economic impacts of freight rail services were estimated based on railroad revenues provided in the STB 2022 Waybill Sample data for each record together with other shipment details, such as weight, number of carloads, and commodity classification.

To align this analysis with the scope of impacts to transportation users, the focus is on impacts due to outbound and interstate shipping and corresponding railroad revenues. It is recognized that some of this revenue would likely accrue to destination states, rather than Texas. However, railroad revenues in Texas, and thus economic impacts, may also accrue via services provided to inbound and through shipments. Overall, given the tonnage of inbound and through shipments, economic impacts based on railroad revenues from outbound and intrastate shipping are likely to represent a conservative estimate of impacts.

Freight Movements

The STB 2022 Waybill Sample data of rail shipments originating in Texas described in Chapter 2 provided the volume of shipments of goods originating in Texas. Meanwhile, FAF was leveraged to extract values of shipments by rail in millions of 2022 dollars that originate in Texas. The total shipment values were converted to average commodity value, by commodity, in terms of value per ton in 2022 dollars. These were then matched to commodity categories in the STB 2022 Waybill Sample data.

Multiplying the tonnage of shipments from the Waybill data by the average value of goods provided the total value of commodities shipped from a Texas origin. As mentioned in the previous section, this is interpreted as shippers' revenue, or the value of production, supported (facilitated or made more competitive) by the presence of rail

[4] Amtrak, Texas. Amtrak's Contributions to Texas, 2016.

transportation. The employment and income related to these shipments are interpreted as the economic impacts related to rail.

It is noted that in practice many shipments may represent movements of goods from warehousing and distribution centers, rather than manufacturing establishments directly. In particular, the analysis of 2017 Commodity Flow Survey data reveals that, by value, 39.2% of shipments are shipped by manufacturing industries, and about 54.9% are shipped by wholesale trade and warehousing and storage industries.[5] Based on this analysis, 54.9% of all commodity shipments by value were assigned to wholesale trade and the remaining share were assigned to the various IMPLAN input-output industries that produce a given commodity. Revenue of the warehousing industry was estimated using an assumption for the wholesale margin which was applied to the value of the goods handled. The wholesale margin was sourced from the 2017 US Census, which indicated that the margins for wholesalers are approximately 27.5%,[6] and the total value was allocated to wholesale trade.

As seen in Table C – 1, the top 10 volume of goods shipped from Texas origins amount to almost 79.2 million tons, which reflects approximately 98.6% of the total volume of goods shipped from Texas and have a total value of $181.1 billion. The table also indicates that the top 3 shipments, in terms of tonnage, were Chemical or Allied Products (38.4% of total tonnage), followed by Nonmetallic Minerals (22.1% of total tonnage), and Petroleum or Coal Products (11.4% of total tonnage). Meanwhile, in terms of value, the top 3 shipments were Transportation Equipment ($51.1 billion), Miscellaneous Mixed Shipments ($49.1 billion), and Chemicals or Allied Products ($42.2 billion).

[5] Calculated based on United States 2017 Economic Census: Transportation, Table A7a.

[6] Based on data from: U.S. Census Bureau. "Wholesale Trade: Gross Margin and its Components for Merchant Wholesalers for the U.S.: 2017." Economic Census, ECN Sector Statistics Wholesale Trade: Gross Margin and its Components for Merchant Wholesalers for the U.S., Table EC1742MARGIN, 2017, https://data.census.gov/table/ECNMARGIN2017.EC1742MARGIN?q=EC1742MARGIN. Accessed on September 15, 2024.

Table C – 1: Freight Shipments Assessed in the Economic Impact Analysis

Commodity Group	Outbound and Intrastate Volumes (Thousand tons)	Commodity Value ($/ton)	Shipment Value ($ Millions)	Value to Allocated to Wholesale Trade ($ Millions)	Value to Allocated to IMPLAN Industries ($ Millions)
Chemicals or Allied Products	13,416	$3,145	$42,190.9	$23,179.1	$19,011.7
Nonmetallic Minerals	3,866	$560	$2,166.6	$1,190.3	$976.3
Petroleum or Coal Products	15,824	$587	$9,284.6	$5,100.8	$4,183.8
Transportation Equipment	5,038	$10,149	$51,125.9	$28,087.9	$23,038.0
Food or Kindred Products	4,895	$1,295	$6,337.8	$3,481.9	$2,855.9
Clay, Concrete, Glass or Stone	4,732	$113	$534.9	$293.9	$241.0
Primary Metal Products	3,469	$607	$2,107.3	$1,157.7	$949.6
Pulp, Paper or Allied Products	39	$99,436	$3,872.9	$2,127.7	$1,745.2
Farm Products	7,343	$191	$1,404.2	$771.4	$632.7
Logs, Lumber, Wood Prod.	564	$1,004	$566.7	$311.3	$255.4
Apparel or Related Products	25	$357,193	$8,828.1	$4,850.1	$3,978.1
Rubber or Misc Plastics	16,120	$30	$490.5	$269.5	$221.0
Waste or Scrap Materials Not Identified by Producing Industry	3,432	$235	$806.2	$0.0	$806.2
Misc Mixed Shipments	41	$1,184,176	$49,136.9	$26,995.2	$22,141.7
Misc Freight Shipments	421	$5,394	$2,268.7	$1,246.4	$1,022.3

Note: All monetary values are in 2022 dollars.

Results

Rail Transportation Service Impacts

Table C – 2 presents the impacts of rail transportation services provision in Texas in 2022. The rail transportation services industry in Texas supported over 13,400 jobs, which comprised of over 200 passenger rail related jobs and over 13,200 freight transportation related jobs. The indirect and induced effects in other related industries, due to spending on rail operations, supported almost an additional 20,000 jobs (12,500 indirect jobs and 7,500 induced jobs) throughout the State. Combined, in 2022 an estimated over 33,400 jobs related in some way to the provision of freight and passenger rail services.

Other industry impacts included:

- $17.0 billion in total output
- $4.6 billion in total labor income
- $8.8 billion in total value added
- $556.9 million in total tax revenues

Table C – 2: Economic Impact of Rail Transportation Service, 2022

Category of Impact	Output ($ Million)	Employment (Jobs)	Labor Income ($ Million)	Value Added ($ Million)	Taxes ($ Million)
Freight Shippers					
Direct	$8,151.6	13,206	$1,912.9	$4,049.8	$88.0
Indirect	$5,227.4	12,284	$1,556.8	$2,725.0	$284.8
Induced	$3,391.2	7,427	$1,038.2	$1,929.9	$175.8
Total	$16,770.2	32,917	$4,508.0	$8,704.8	$548.7
Passenger Rail Operations					
Direct	$121.9	207	$28.6	$60.5	$1.3
Indirect	$78.2	184	$23.3	$40.7	$4.3
Induced	$50.7	111	$15.5	$28.9	$2.6
Total	$250.7	502	$67.4	$130.1	$8.2
All Rail Transportation Service					
Direct	$8,273.5	13,413	$1,941.5	$4,110.4	$89.3
Indirect	$5,305.6	12,468	$1,580.1	$2,765.8	$289.1
Induced	$3,441.9	7,538	$1,053.8	$1,958.8	$178.5
Total	$17,020.9	33,418	$4,575.4	$8,834.9	$556.9

Note: All monetary values are in 2022 dollars.

The findings shown in Table C – 2 indicate that the predominant share of rail transportation service impacts are attributable to the freight rail industry in Texas. This is due to the comparatively small passenger rail service within Texas.

Rail Transportation User Impacts

Table C – 3 presents the impacts of rail transportation users in Texas in 2022. Through their economic activities, rail users directly supported 249,400 jobs, and a total of over 435,800 jobs. Other industry impacts included:

- $203.2 billion in total output
- $49.7 billion in total employment income
- $92.7 billion in total value added
- $6.6 billion in total tax revenues based on the services and products

Table C – 3: Economic Impact of Rail Transportation Users, 2022

Category of Impact	Output ($ Million)	Employment (Jobs)	Labor Income ($ Million)	Value Added ($ Million)	Taxes ($ Million)
Direct	$108,495.0	249,410	$21,920.0	$43,437.3	$2,882.9
Indirect	$57,334.8	115,911	$16,301.7	$28,028.8	$1,771.3
Induced	$37,333.4	70,502	$11,431.5	$21,246.6	$1,935.0
Total	**$203,163.3**	**435,823**	**$49,653.1**	**$92,712.7**	**$6,589.3**

Note: All monetary values are in 2022 dollars.

Summary of Impacts

Total Rail Activity Impacts

Table C – 4 provides a summary of the total rail-related impacts in Texas in 2022. Accounting for both rail transportation users and rail transportation services, the rail industry supported over 469,200 jobs and $54.2 billion in employment income in Texas. Moreover, the rail-related impacts generated $220.2 billion in output, $101.5 billion in value-added to the State, and $7.1 billion in tax revenue.

Table C – 4: Total Rail Transportation Impacts, 2022

Category of Impact	Output ($ Million)	Employment (Jobs)	Labor Income ($ Million)	Value Added ($ Million)	Taxes ($ Million)
					$2,972.3
Indirect	$62,640.4	128,379	$17,881.8	$30,794.6	$2,060.4
					$2,113.5
Total	**$220,184.2**	**469,241**	**$54,228.5**	**$101,547.7**	**$7,146.1**

Note: All monetary values are in 2022 dollars.

Impacts as Percentage of Total Economy

To present the economic contribution of the rail industry in Texas, the estimated impacts were compared with the corresponding economic statistics for the entire state. The comparison of the data points are presented in Table C – 5. The results indicate that the rail industry in Texas accounted for about 3.1% to 5.7% of the state's economy,[7] depending on the reference measure.

Table C – 5: Texas and Rail-Related Economic Measures, 2022

Measure of Economic Activity	Overall State Level	Rail Industry Related Activity	Share of Rail Related Activity
Employment	15,376,318	469,241	3.1%
Employment Income	$957,179.7	$54,228.5	5.7%
Value Added	$2,402,137.2	$101,547.7	4.2%

Note: All monetary values are in 2022 dollars.

7 Employment for Texas in 2022 were obtained from the U.S. Census Bureau's 2022.
Total employment income in Texas in 2022 was obtained from the U.S. Bureau of Economic Analysis Total Wages and Salaries in Texas [TXWTOT], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TXWTOT, September 5, 2024.
The value added / GDP from Texas in 2022 were obtained from the U.S. Bureau of Economic Analysis, Gross Domestic Product: All Industry Total in Texas [TXNGSP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TXNGSP, September 5, 2024.

2024 Texas Rail Plan: Appendix D

Supplementary Data on Current Freight Rail Movements

Contents

2024 Texas Rail Plan: Appendix D **1**

Supplementary Data on Current Freight Rail Movements 1

Introduction 3

Commodity Shipments Detail 3

Data Tables 13

Figures

Figure D – 1: Rail Outbound Commodity Tonnage by Texas County, 2022 – Chemicals or Allied Products 4

Figure D – 2: Rail Outbound Commodity Tonnage by Texas County, 2022 – Transportation Equipment 4

Figure D – 3: Rail Outbound Commodity Tonnage by Texas County, 2022 – Food or Kindred Products 5

Figure D – 4: Rail Outbound Commodity Tonnage by Texas County, 2022 – Misc. Mixed Shipments 5

Figure D – 5: Rail Outbound Commodity Tonnage by Texas County, 2022 – Petroleum or Coal Products6

Figure D – 6: Rail Outbound Commodity Tonnage by Destination, 2022 7

Figure D – 7: Rail Outbound Commodity Tonnage by Origin, 2022 9

Figure D – 8: Rail Inbound Commodity Tonnage by Texas County, 2022 – Farm Products 11

Figure D – 9: Rail Inbound Commodity Tonnage by Texas County, 2022 – Coal 11

Figure D – 10: Rail Inbound Commodity Tonnage by Texas County, 2022 – Chemicals or Allied Products 12

Figure D – 11: Rail Inbound Commodity Tonnage by Texas County, 2022 – Misc. Mixed Shipments 12

Figure D – 12: Rail Inbound Commodity Tonnage by Texas County, 2022 – Food or Kindred Products 13

Tables

Table D – 1: Rail Movement by Commodity (All Directions), 2022 14

Table D – 2: Rail Outbound Movement by Commodity, 2022 16

Table D – 3: Rail Inbound Movement by Commodity, 2022 18

Table D – 4: Rail Intrastate Movement by Commodity, 2022 20

Table D – 5: Rail Through Movement by Commodity, 2022 22

Table D – 6: Rail Outbound Tons by Geography and Texas County Origin, 2022 24

Table D – 7: Rail Outbound Tons by Geography and Destination (Outside of Texas), 2022 26

Table D – 8: Rail Inbound Tons by Geography and Origin (Outside of Texas), 2022 28

Table D – 9: Rail Inbound Tons by Geography and Texas County Destination, 2022 30

Table D – 10: FHWA FAF Rail Tonnage (Thousand Tons) by SCTG Code, 2022 and 2050 32

Introduction

This appendix provides detailed table and supplementary documentation for Supplementary Data on Current Freight Rail Movements. The breakdown of this appendix is as follows:

- Commodity Shipments Detail: Highlights statistical information on the freight rail traffic in Texas by direction and commodity, as well as providing insight on the county of origin or destination and the state of origin or destination.
- Data Tables: Presents the detailed data tables that were used to conduct this analysis.

Commodity Shipments Detail

Outbound Rail Tonnage – Origin

Five Texas counties accounted for over 55% of 2022 rail movements to out-of-state destinations. These counties included the following: Harris County (16.4 million tons, or 25.7% of outbound rail total), Webb County (5.2 million tons, 8.2% of outbound rail total), Maverick County (4.7 million tons, 7.4% of outbound rail total), Tarrant County (4.6 million tons, 7.2% of outbound rail total), and Brazoria County (4.5 million tons, 7.0% of outbound rail total). The top commodities shipped from these counties include Chemicals or Allied Products, Transportation Equipment, Food or Kindred Products, Miscellaneous Mixed Shipments, and Petroleum or Coal Products, and are highlighted in Figure D – 1 to Figure D – 5.

The top 5 outbound commodities, by tonnage, are highlighted below for the top 3 origin counties, by tonnage.

Harris County:

1. Chemicals or Allied Products (11.8 million tons, 72.0% of county outbound rail volume).
2. Petroleum or Coal Products (2.2 million tons, 13.5% of county outbound rail volume).
3. Misc. Mixed Shipments (0.8 million tons, 5.0% of county outbound rail volume).
4. Food or Kindred Products (0.3 million tons, 2.0% of county outbound rail volume).
5. Farm Products (0.2 million tons, 1.2% of county outbound rail volume).

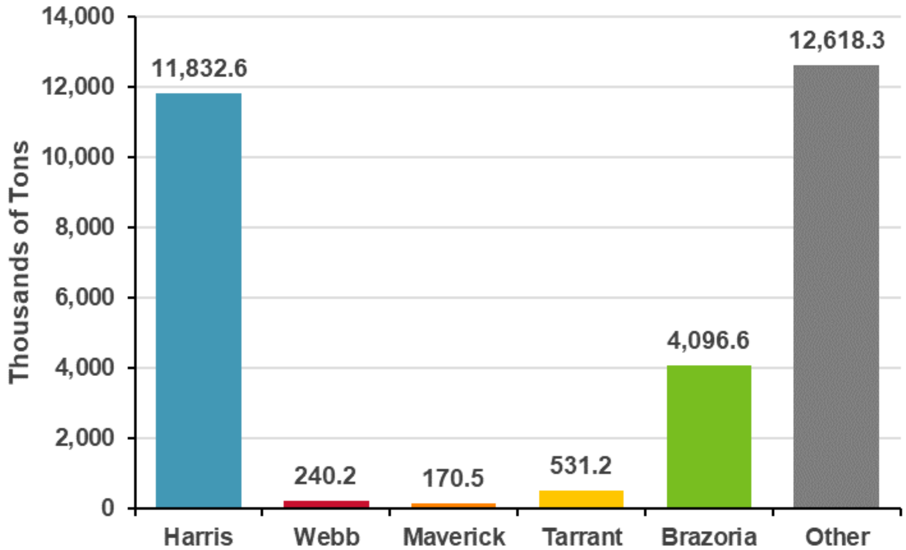
Webb County:

1. Transportation Equipment (2.9 million tons, 56.7% of county outbound rail volume).
2. Primary Metal Products (0.6 million tons, 11.4% of county outbound rail volume).
3. Food or Kindred Products (0.3 million tons, 5.9% of county outbound rail volume).
4. Clay, Concrete, Glass or Stone (0.3 million tons, 5.7% of county outbound rail volume).
5. Misc. Freight Shipments (0.2 million tons, 4.6% of county outbound rail volume).

Maverick County:

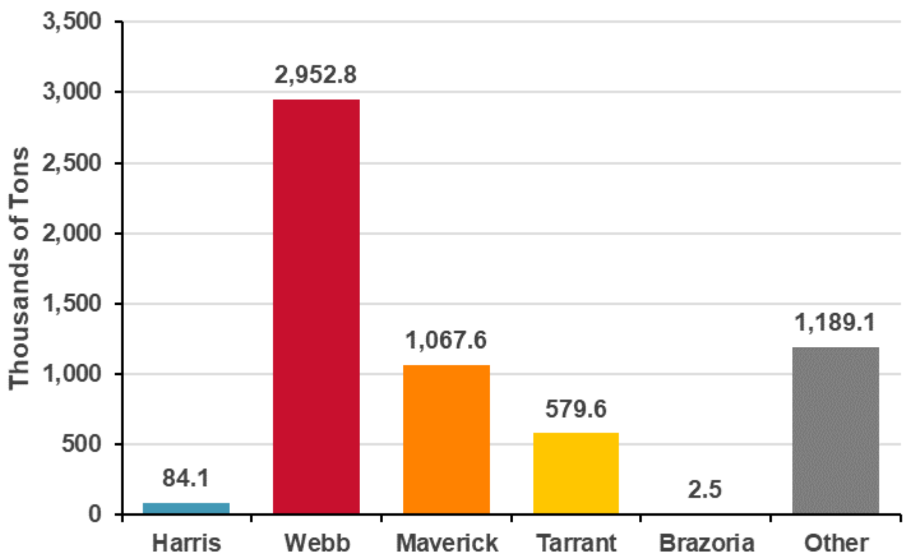
1. Food or Kindred Products (3.2 million tons, 65.8% of county outbound rail volume).
2. Transportation Equipment (1.1 million tons, 22.5% of county outbound rail volume).
3. Clay, Concrete, Glass or Stone (0.3 million tons, 5.8% of county outbound rail volume).
4. Chemicals or Allied Products (0.2 million tons, 3.6% of county outbound rail volume).
5. Machinery (28.8 thousand tons, 0.6% of county outbound rail volume).

Figure D – 1: Rail Outbound Commodity Tonnage by Texas County, 2022 – Chemicals or Allied Products



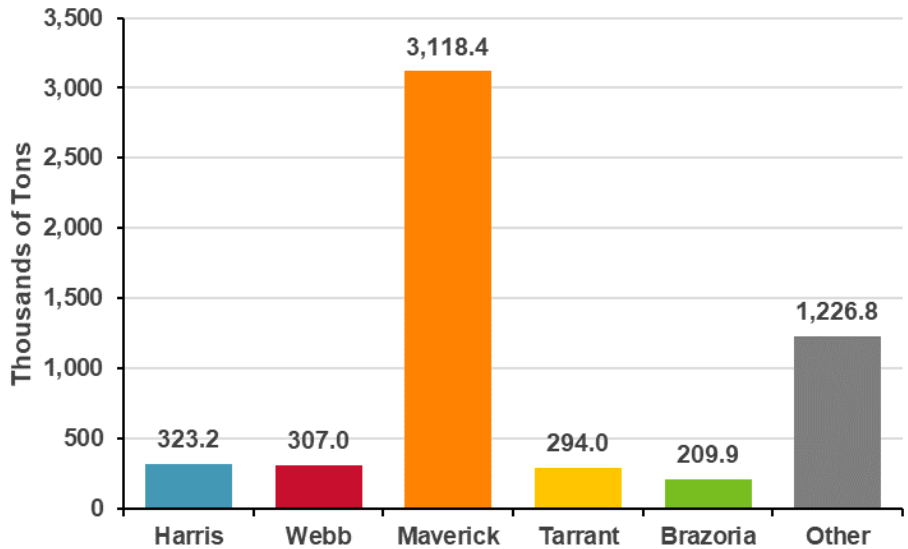
Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 2: Rail Outbound Commodity Tonnage by Texas County, 2022 – Transportation Equipment



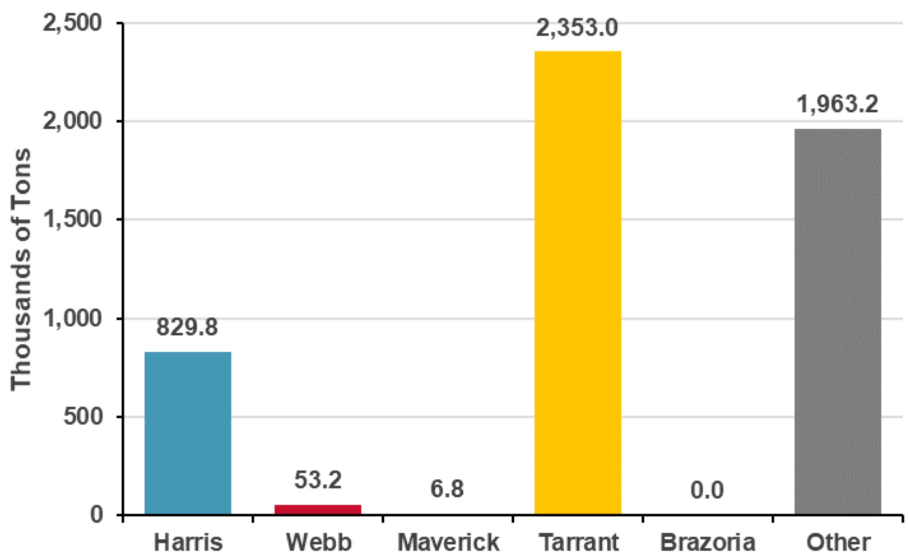
Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 3: Rail Outbound Commodity Tonnage by Texas County, 2022 – Food or Kindred Products



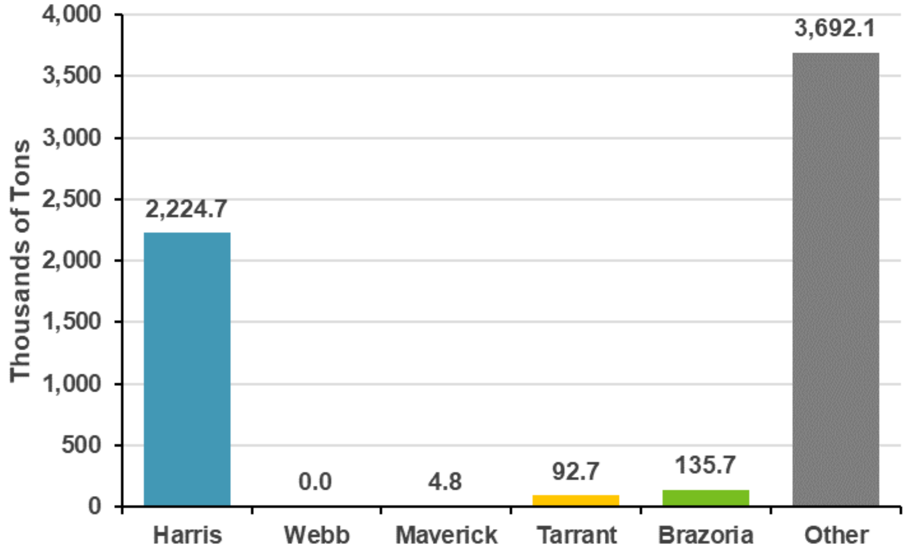
Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 4: Rail Outbound Commodity Tonnage by Texas County, 2022 – Misc. Mixed Shipments



Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 5: Rail Outbound Commodity Tonnage by Texas County, 2022 – Petroleum or Coal Products



Source: HDR, based on 2022 STB Waybill Sample data

Outbound Rail Tonnage – Destination

Three destination states accounted for over 60% of rail movements originating in Texas in 2022. These states included the following: Illinois (16.8 million tons, 26.3% of outbound rail total), California (11.1 million tons, 17.4% of outbound rail total), and Louisiana (10.7 million tons, 16.7% of outbound rail total). The top commodities shipped to these states include Chemicals or Allied Products, Miscellaneous Mixed Shipments, Transportation Equipment, Food or Kindred Products, and Petroleum or Coal Products, and are highlighted in

Figure D – 6.

The 5 outbound commodities, by tonnage, for these states are:

Illinois:

1. Chemicals or Allied Products (9.5 million tons, 56.7% of total rail volumes to state).
2. Transportation Equipment (2.6 million tons, 15.6% of total rail volumes to state).
3. Misc. Mixed Shipments (1.0 million tons, 6.0% of total rail volumes to state).
4. Petroleum or Coal Products (0.9 million tons, 5.6% of total rail volumes to state).
5. Food or Kindred Products (0.9 million tons, 5.4% of total rail volumes to state).

California:

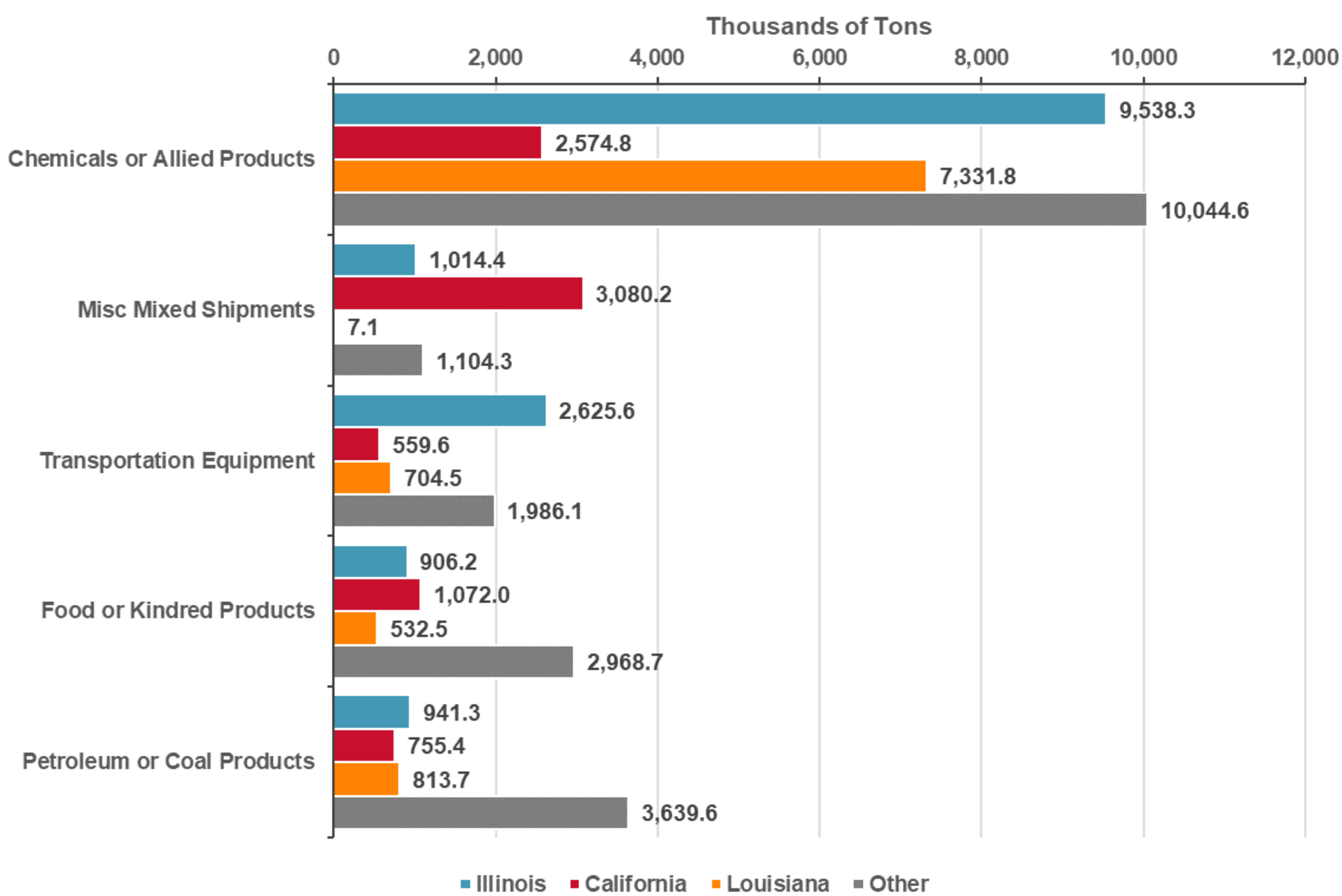
1. Misc. Mixed Shipments (3.1 million tons, 27.6% of total rail volumes to state).
2. Chemicals or Allied Products (2.6 million tons, 23.1% of total rail volumes to state).
3. Food or Kindred Products (1.1 million tons, 9.6% of total rail volumes to state).
4. Farm Products (0.9 million tons, 7.7% of total rail volumes to state).

5. Petroleum or Coal Products (0.8 million tons, 6.8% of total rail volumes to state).

Louisiana:

1. Chemicals or Allied Products (7.3 million tons, 68.8% of total rail volumes to state).
2. Rubber or Misc. Plastics (0.8 million tons, 7.6% of total rail volumes to state).
3. Transportation Equipment (0.7 million tons 6.6% of total rail volumes to state).
4. Non-Metallic Minerals (0.5 million tons, 5.0% of total rail volumes to state).
5. Food or Kindred Products (0.5 million tons, 5.0% of total rail volumes to state).

Figure D – 6: Rail Outbound Commodity Tonnage by Destination, 2022



Source: HDR, based on 2022 STB Waybill Sample data

Inbound Rail Tonnage – Origin

Four states accounted for over 50% of 2022 rail movements to Texas destinations. These states included the following: Wyoming (42.1 million tons, 25.5% of inbound rail total), Illinois (18.0 million tons, 10.9% of inbound rail total), Oklahoma (13.7 million tons, 8.3% of inbound rail total), and Iowa (11.9 million tons, 7.2% of inbound rail total). The top commodities shipped from these states include Coal, Farm Products, Non-Metallic Minerals, Food or Kindred Products, and Chemicals or Allied Products, and are highlighted in Figure D – 7.

The 5 outbound commodities, by tonnage, for these states are:

Wyoming:

1. Coal (40.0 million tons, 95.0% of total rail volumes from state).
2. Chemicals or Allied Products (1.7 million tons, 4.0% of total rail volumes from state).
3. Clay, Concrete, Glass or Stone (0.3 million tons, 0.7% of total rail volumes from state).
4. Petroleum or Coal Products (67.8 thousand tons, 0.2% of total rail volumes from state).
5. Non-Metallic Minerals (50.1 thousand tons, 0.1% of total rail volumes from state).

Illinois:

1. Farm Products (7.1 million tons, 39.5% of total rail volumes from state).
2. Food or Kindred Products (2.4 million tons, 13.3% of total rail volumes from state).
3. Misc. Mixed Shipments (1.9 million tons, 10.5% of total rail volumes from state).
4. Transportation Equipment (1.7 million tons, 9.7% of total rail volumes from state).
5. Non-Metallic Minerals (1.2 million tons, 6.6% of total rail volumes from state).

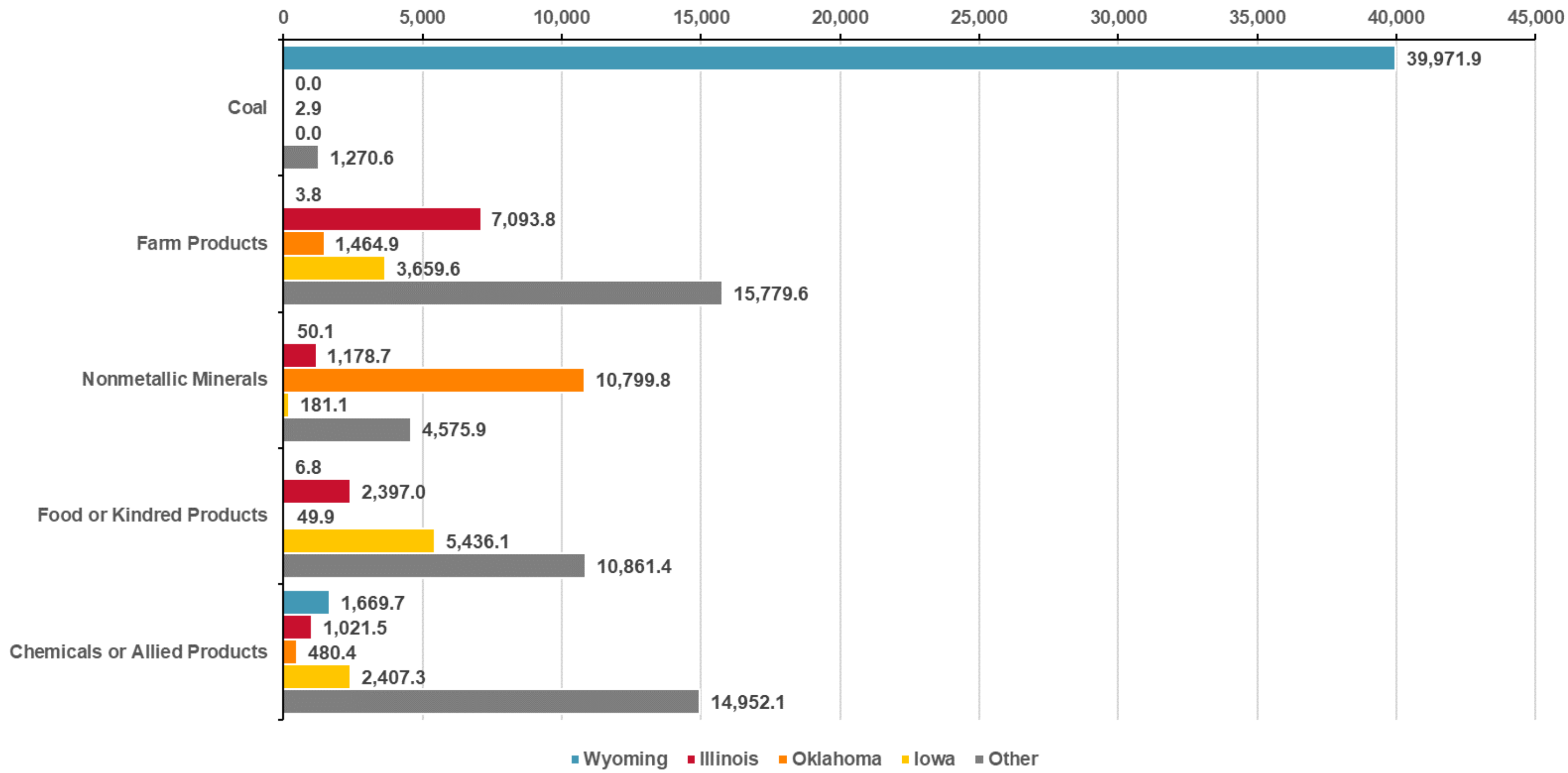
Oklahoma:

1. Non-Metallic Minerals (10.8 million tons, 79.0% of total rail volumes from state).
2. Farm Products (1.5 million tons, 10.7% of total rail volumes from state).
3. Petroleum or Coal Products (0.5 million tons 3.9% of total rail volumes from state).
4. Clay, Concrete, Glass or Stone (0.5 million tons, 3.5% of total rail volumes from state).
5. Waste or Scrap Materials (0.1 million tons, 1.0% of total rail volumes from state).

Iowa:

1. Food or Kindred Products (5.4 million tons, 45.8% of total rail volumes from state).
2. Farm Products (3.7 million tons, 30.8% of total rail volumes from state).
3. Chemicals or Allied Products (2.4 million tons 20.3% of total rail volumes from state).
4. Non-Metallic Minerals (0.2 million tons, 1.5% of total rail volumes from state).
5. Primary Metal Products (77.4 thousand tons, 0.7% of total rail volumes from state).

Figure D – 7: Rail Outbound Commodity Tonnage by Origin, 2022



Source: HDR, based on 2022 STB Waybill Sample Data

Inbound Rail Tonnage – Destination

The top five Texas destination counties accounted for over 36% of inbound rail movements in 2022. These counties included the following: Harris (19.3 million tons, 11.7% of inbound total), Tarrant (12.5 million tons, 7.6% of inbound total), Dallas (10.4 million tons, 6.3% of inbound total), Maverick (9.0 million tons, 5.4% of inbound total), and Fort Bend (8.7 million tons, 5.3% of inbound total). The top commodities shipped to these counties include Farm Products, Coal, Chemicals or Allied Products, Miscellaneous Mixed Shipments, and Non-Metallic Minerals, and are highlighted in Figure D – 8 to Figure D – 12.

The top 5 inbound commodities, by tonnage, are presented below for the top 3 destination counties within Texas, by tonnage.

Harris County:

1. Chemicals or Allied Products (5.0 million tons, 25.8% of county inbound rail volume).
2. Farm Products (4.9 million tons, 25.4% of county inbound rail volume).
3. Petroleum or Coal Products (2.5 million tons, 12.9% of county inbound rail volume).
4. Primary Metal Products (1.5 million tons, 7.6% of county inbound rail volume).
5. Coal (1.0 million tons, 5.1% of county inbound rail volume).

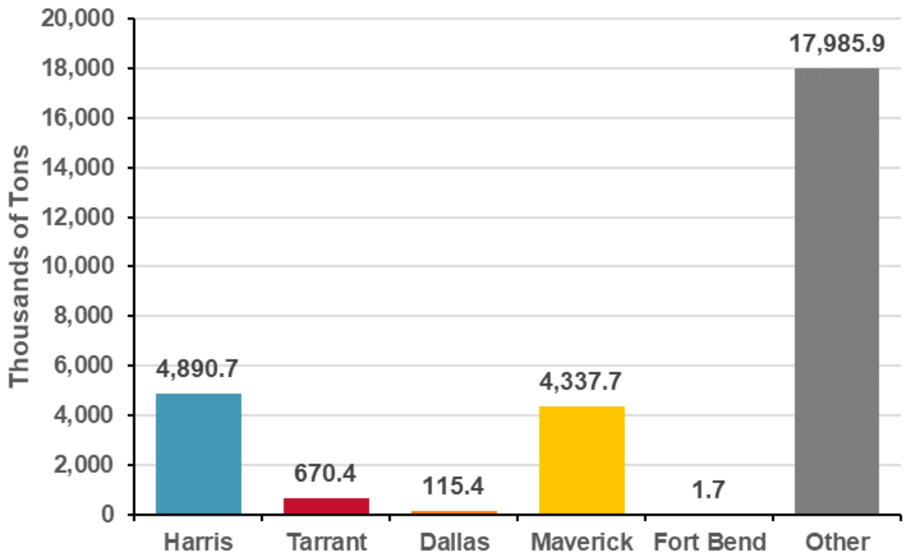
Tarrant County:

1. Misc. Mixed Shipments (4.2 million tons, 34.0% of county inbound rail volume).
2. Chemicals or Allied Products (2.3 million tons, 18.7% of county inbound rail volume).
3. Food or Kindred Products (1.5 million tons, 12.3% of county inbound rail volume).
4. Non-Metallic Minerals (1.3 million tons, 10.5% of county inbound rail volume).
5. Farm Products (0.7 million tons, 5.4% of county inbound rail volume).

Dallas County:

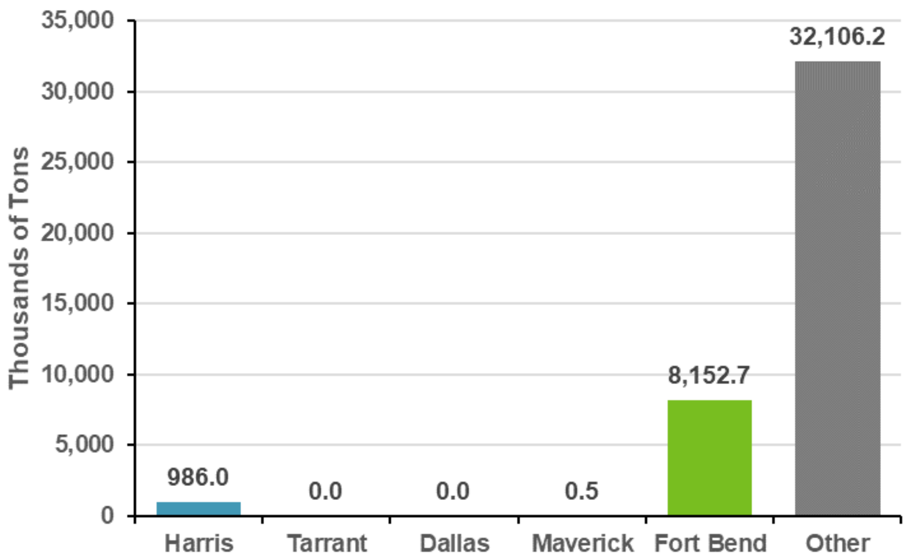
1. Non-Metallic Minerals (2.6 million tons, 25.0% of county inbound rail volume).
2. Misc. Mixed Shipments (2.1 million tons, 20.0% of county inbound rail volume).
3. Food or Kindred Products (1.5 million tons, 14.3% of county inbound rail volume).
4. Chemicals or Allied Products (0.7 million tons, 7.1% of county inbound rail volume).
5. Logs, Lumber, Wood Products (0.7 million tons, 6.9% of county inbound rail volume).

Figure D – 8: Rail Inbound Commodity Tonnage by Texas County, 2022 – Farm Products



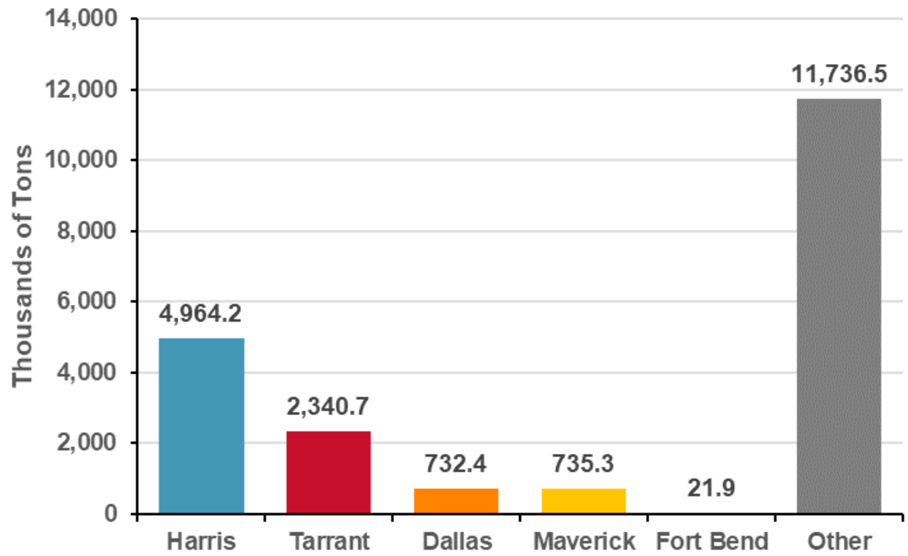
Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 9: Rail Inbound Commodity Tonnage by Texas County, 2022 – Coal



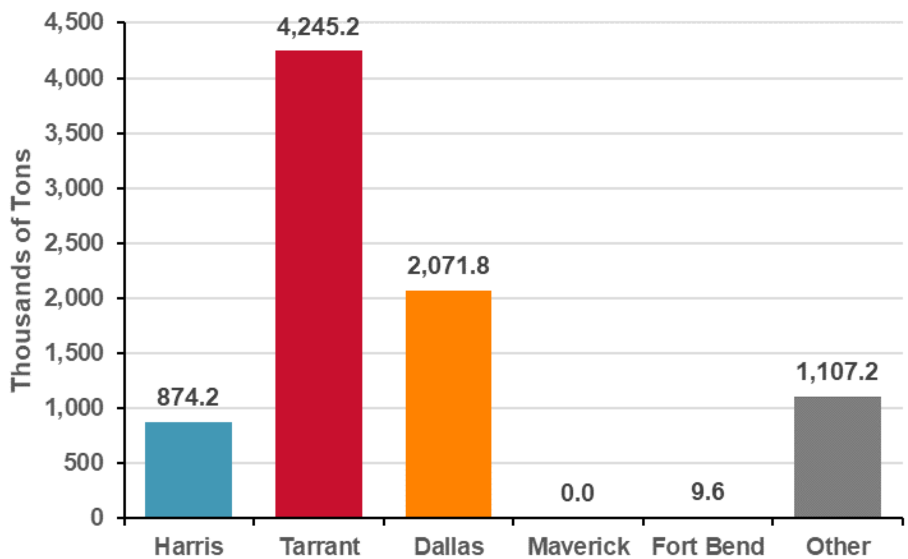
Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 10: Rail Inbound Commodity Tonnage by Texas County, 2022 – Chemicals or Allied Products



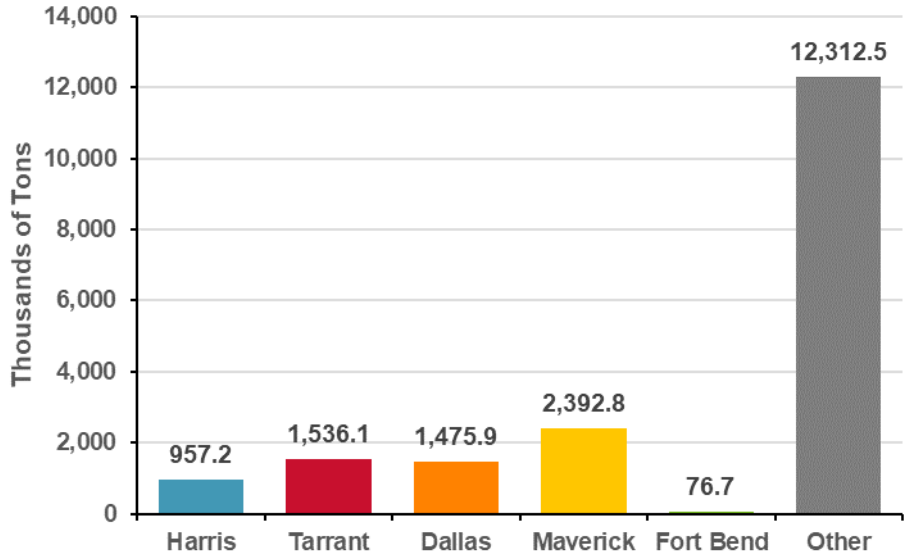
Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 11: Rail Inbound Commodity Tonnage by Texas County, 2022 – Misc. Mixed Shipments



Source: HDR, based on 2022 STB Waybill Sample data

Figure D – 12: Rail Inbound Commodity Tonnage by Texas County, 2022 – Food or Kindred Products



Source: HDR, based on 2022 STB Waybill Sample data

Data Tables

This section presents the following detailed data tables for rail movements in Texas in 2022:

- Rail Movement by Commodity (All Directions)
- Rail Outbound Movement by Commodity
- Rail Inbound Movement by Commodity
- Rail Intrastate Movement by Commodity
- Rail Through Movement by Commodity
- Rail Outbound Tons by Geography and Texas County Origin
- Rail Outbound Tons by Geography and Destination (Outside of Texas)
- Rail Inbound Tons by Geography and Origin (Outside of Texas)
- Rail Inbound Tons by Geography and Texas County Destination
- Federal Highway Administration's (FHWA) Freight Analysis Framework's (FAF) Rail Tonnage by SCTG Code, 2022 and 2050

Table D – 1: Rail Movement by Commodity (All Directions), 2022

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
1	Farm Products	48.8	11.9%	576,180	5.7%
8	Forest Products	0.0	0.0%	370	0.0%
9	Fresh Fish or Marine Products	0.0	0.0%	200	0.0%
10	Metallic Ores	0.3	0.1%	2,998	0.0%
11	Coal	43.6	10.6%	362,134	3.6%
13	Petroleum Prod, Natural Gas	2.1	0.5%	22,424	0.2%
14	Nonmetallic Minerals	50.8	12.4%	470,779	4.6%
19	Ordnance or Accessories	0.0	0.0%	593	0.0%
20	Food or Kindred Products	38.4	9.4%	658,572	6.5%
22	Textile Mill Products	0.1	0.0%	4,555	0.0%
23	Apparel or Related Products	2.4	0.6%	178,370	1.8%
24	Logs, Lumber, Wood Prod.	5.1	1.3%	81,255	0.8%
25	Furniture or Fixtures	1.2	0.3%	108,365	1.1%
26	Pulp, Paper or Allied Products	8.9	2.2%	199,185	2.0%
27	Printed Matter	0.1	0.0%	8,920	0.1%
28	Chemicals or Allied Products	82.9	20.2%	964,581	9.5%
29	Petroleum or Coal Products	28.2	6.9%	336,917	3.3%
30	Rubber or Misc Plastics	2.6	0.6%	201,210	2.0%
31	Leather or Leather Products	0.0	0.0%	2,200	0.0%
32	Clay, Concrete, Glass or Stone	8.7	2.1%	105,421	1.0%
33	Primary Metal Products	11.4	2.8%	138,748	1.4%
34	Fabricated Metal Products	0.4	0.1%	23,921	0.2%
35	Machinery	0.8	0.2%	62,351	0.6%
36	Electrical Equipment	1.1	0.3%	94,055	0.9%
37	Transportation Equipment	14.4	3.5%	828,294	8.2%
38	Instrum, Photo Equip, Optical Eq	0.2	0.0%	9,435	0.1%
39	Misc Manufacturing Products	0.2	0.1%	21,925	0.2%
40	Waste or Scrap Materials Not Identified by Producing Industry	6.2	1.5%	80,815	0.8%
41	Misc Freight Shipments	1.1	0.3%	121,228	1.2%
42	Shipping Containers	0.1	0.0%	886,240	8.8%

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
43	Mail or Contract Traffic	0.0	0.0%	960	0.0%
44					
45	Shipper Association or Similar Traffic	0.0	0.0%	40	
46					32.5%
47	Small Package Freight Shipments	1.8	0.4%	130,320	
48	Waste Hazardous Materials or Waste Hazardous Substances	0.4	0.1%	4,665	0.0%
	Total	**409.6**		**10,128,376**	

Table D – 2: Rail Outbound Movement by Commodity, 2022

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
1	Farm Products	1.2	0.3%	25,348	0.3%
8	Forest Products	0.0	0.0%	35	0.0%
9	Fresh Fish or Marine Products	-	0.0%	0	0.0%
10	Metallic Ores	0.0	0.0%	330	0.0%
11	Coal	-	0.0%	0	0.0%
13	Petroleum Prod, Natural Gas	0.3	0.1%	2,836	0.0%
14	Nonmetallic Minerals	0.7	0.2%	7,785	0.1%
19	Ordnance or Accessories	0.0	0.0%	264	0.0%
20	Food or Kindred Products	5.5	1.3%	116,770	1.2%
22	Textile Mill Products	0.0	0.0%	560	0.0%
23	Apparel or Related Products	0.6	0.1%	46,825	0.5%
24	Logs, Lumber, Wood Prod.	0.6	0.1%	10,720	0.1%
25	Furniture or Fixtures	0.1	0.0%	8,200	0.1%
26	Pulp, Paper or Allied Products	1.8	0.4%	37,940	0.4%
27	Printed Matter	0.0	0.0%	640	0.0%
28	Chemicals or Allied Products	29.5	7.2%	328,526	3.2%
29	Petroleum or Coal Products	6.1	1.5%	79,852	0.8%
30	Rubber or Misc Plastics	0.4	0.1%	35,265	0.3%
31	Leather or Leather Products	-	0.0%	0	0.0%
32	Clay, Concrete, Glass or Stone	1.2	0.3%	17,405	0.2%
33	Primary Metal Products	2.4	0.6%	28,295	0.3%
34	Fabricated Metal Products	0.1	0.0%	8,080	0.1%
35	Machinery	0.3	0.1%	24,771	0.2%
36	Electrical Equipment	0.3	0.1%	33,835	0.3%
37	Transportation Equipment	5.9	1.4%	306,642	3.0%
38	Instrum, Photo Equip, Optical Eq	0.1	0.0%	2,790	0.0%
39	Misc Manufacturing Products	0.0	0.0%	3,320	0.0%
40	Waste or Scrap Materials Not Identified by Producing Industry	0.9	0.2%	13,515	0.1%
41	Misc Freight Shipments	0.3	0.1%	29,308	0.3%
42	Shipping Containers	0.0	0.0%	290,200	2.9%

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
43	Mail or Contract Traffic	0.0	0.0%	120	0.0%
44					
45	Shipper Association or Similar Traffic	-	0.0%	0	
46					3.4%
47	Small Package Freight Shipments	0.1	0.0%	7,520	
48	Waste Hazardous Materials or Waste Hazardous Substances	0.1	0.0%	715	0.0%
	Total	**64.0**		**1,833,137**	

Table D – 3: Rail Inbound Movement by Commodity, 2022

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
1	Farm Products	28.0	6.8%	264,624	2.6%
8	Forest Products	0.0	0.0%	120	0.0%
9	Fresh Fish or Marine Products	0.0	0.0%	40	0.0%
10	Metallic Ores	0.1	0.0%	1,393	0.0%
11	Coal	41.2	10.1%	342,311	3.4%
13	Petroleum Prod, Natural Gas	1.1	0.3%	11,813	0.1%
14	Nonmetallic Minerals	16.8	4.1%	157,099	1.6%
19	Ordnance or Accessories	0.0	0.0%	329	0.0%
20	Food or Kindred Products	18.8	4.6%	220,702	2.2%
22	Textile Mill Products	0.0	0.0%	760	0.0%
23	Apparel or Related Products	0.4	0.1%	31,920	0.3%
24	Logs, Lumber, Wood Prod.	3.1	0.8%	36,690	0.4%
25	Furniture or Fixtures	0.2	0.1%	20,000	0.2%
26	Pulp, Paper or Allied Products	1.9	0.5%	44,160	0.4%
27	Printed Matter	0.0	0.0%	1,360	0.0%
28	Chemicals or Allied Products	20.5	5.0%	228,991	2.3%
29	Petroleum or Coal Products	9.3	2.3%	110,624	1.1%
30	Rubber or Misc Plastics	0.6	0.2%	49,050	0.5%
31	Leather or Leather Products	0.0	0.0%	40	0.0%
32	Clay, Concrete, Glass or Stone	2.8	0.7%	31,356	0.3%
33	Primary Metal Products	4.2	1.0%	48,070	0.5%
34	Fabricated Metal Products	0.0	0.0%	2,640	0.0%
35	Machinery	0.1	0.0%	4,730	0.0%
36	Electrical Equipment	0.1	0.0%	10,490	0.1%
37	Transportation Equipment	3.4	0.8%	201,094	2.0%
38	Instrum, Photo Equip, Optical Eq	0.0	0.0%	1,720	0.0%
39	Misc Manufacturing Products	0.0	0.0%	3,285	0.0%
40	Waste or Scrap Materials Not Identified by Producing Industry	2.8	0.7%	31,137	0.3%
41	Misc Freight Shipments	0.4	0.1%	54,389	0.5%
42	Shipping Containers	0.0	0.0%	12,770	0.1%

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
43	Mail or Contract Traffic	0.0	0.0%	320	0.0%
44					
45	Shipper Association or Similar Traffic	-	0.0%	0	
46					6.4%
47	Small Package Freight Shipments	0.2	0.0%	12,040	
48	Waste Hazardous Materials or Waste Hazardous Substances	0.2	0.0%	1,850	0.0%
	Total	**165.1**		**2,605,477**	

Table D – 4: Rail Intrastate Movement by Commodity, 2022

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
1	Farm Products	0.5	0.1%	4,718	0.0%
8	Forest Products	-	0.0%	0	0.0%
9	Fresh Fish or Marine Products	-	0.0%	0	0.0%
10	Metallic Ores	0.0	0.0%	410	0.0%
11	Coal	0.2	0.0%	1,984	0.0%
13	Petroleum Prod, Natural Gas	0.1	0.0%	680	0.0%
14	Nonmetallic Minerals	29.0	7.1%	266,687	2.6%
19	Ordnance or Accessories	-	0.0%	0	0.0%
20	Food or Kindred Products	1.1	0.3%	13,575	0.1%
22	Textile Mill Products	-	0.0%	0	0.0%
23	Apparel or Related Products	0.0	0.0%	65	0.0%
24	Logs, Lumber, Wood Prod.	0.2	0.0%	1,740	0.0%
25	Furniture or Fixtures	-	0.0%	0	0.0%
26	Pulp, Paper or Allied Products	0.2	0.1%	3,225	0.0%
27	Printed Matter	-	0.0%	0	0.0%
28	Chemicals or Allied Products	22.2	5.4%	234,588	2.3%
29	Petroleum or Coal Products	9.3	2.3%	101,060	1.0%
30	Rubber or Misc Plastics	0.0	0.0%	80	0.0%
31	Leather or Leather Products	-	0.0%	0	0.0%
32	Clay, Concrete, Glass or Stone	3.5	0.8%	34,131	0.3%
33	Primary Metal Products	1.4	0.3%	16,158	0.2%
34	Fabricated Metal Products	0.0	0.0%	80	0.0%
35	Machinery	0.0	0.0%	1,465	0.0%
36	Electrical Equipment	0.0	0.0%	475	0.0%
37	Transportation Equipment	1.4	0.3%	93,771	0.9%
38	Instrum, Photo Equip, Optical Eq	0.0	0.0%	245	0.0%
39	Misc Manufacturing Products	0.0	0.0%	80	0.0%
40	Waste or Scrap Materials Not Identified by Producing Industry	1.4	0.3%	15,505	0.2%
41	Misc Freight Shipments	0.0	0.0%	1,954	0.0%
42	Shipping Containers	-	0.0%	28,960	0.3%

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
43	Mail or Contract Traffic	-	0.0%	0	0.0%
44					
45	Shipper Association or Similar Traffic	-	0.0%	0	
46					0.0%
47	Small Package Freight Shipments	-	0.0%	0	
48	Waste Hazardous Materials or Waste Hazardous Substances	0.1	0.0%	920	0.0%
	Total	**70.6**		**826,331**	

Table D – 5: Rail Through Movement by Commodity, 2022

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
1	Farm Products	19.1	4.7%	281,490	2.8%
8	Forest Products	0.0	0.0%	215	0.0%
9	Fresh Fish or Marine Products	0.0	0.0%	160	0.0%
10	Metallic Ores	0.1	0.0%	865	0.0%
11	Coal	2.1	0.5%	17,839	0.2%
13	Petroleum Prod, Natural Gas	0.6	0.2%	7,095	0.1%
14	Nonmetallic Minerals	4.2	1.0%	39,208	0.4%
19	Ordnance or Accessories	-	0.0%	0	0.0%
20	Food or Kindred Products	13.1	3.2%	307,525	3.0%
22	Textile Mill Products	0.1	0.0%	3,235	0.0%
23	Apparel or Related Products	1.3	0.3%	99,560	1.0%
24	Logs, Lumber, Wood Prod.	1.3	0.3%	32,105	0.3%
25	Furniture or Fixtures	0.9	0.2%	80,165	0.8%
26	Pulp, Paper or Allied Products	4.9	1.2%	113,860	1.1%
27	Printed Matter	0.1	0.0%	6,920	0.1%
28	Chemicals or Allied Products	10.7	2.6%	172,476	1.7%
29	Petroleum or Coal Products	3.5	0.9%	45,381	0.4%
30	Rubber or Misc Plastics	1.5	0.4%	116,815	1.2%
31	Leather or Leather Products	0.0	0.0%	2,160	0.0%
32	Clay, Concrete, Glass or Stone	1.2	0.3%	22,529	0.2%
33	Primary Metal Products	3.4	0.8%	46,225	0.5%
34	Fabricated Metal Products	0.2	0.1%	13,121	0.1%
35	Machinery	0.4	0.1%	31,385	0.3%
36	Electrical Equipment	0.6	0.1%	49,255	0.5%
37	Transportation Equipment	3.7	0.9%	226,787	2.2%
38	Instrum, Photo Equip, Optical Eq	0.1	0.0%	4,680	0.0%
39	Misc Manufacturing Products	0.2	0.0%	15,240	0.2%
40	Waste or Scrap Materials Not Identified by Producing Industry	1.2	0.3%	20,658	0.2%
41	Misc Freight Shipments	0.4	0.1%	35,577	0.4%
42	Shipping Containers	0.0	0.0%	554,310	5.5%

Code	Commodity Name	Tons (Millions)		Carloads	
		Amount	Percent	Amount	Percent
43	Mail or Contract Traffic	0.0	0.0%	520	0.0%
44					
45	Shipper Association or Similar Traffic	0.0	0.0%	40	
46					22.7%
47	Small Package Freight Shipments	1.5	0.4%	110,760	
48	Waste Hazardous Materials or Waste Hazardous Substances	0.1	0.0%	1,180	0.0%
	Total	**109.8**		**4,863,431**	

Table D – 6: Rail Outbound Tons by Geography and Texas County Origin, 2022

Code	Commodity Name	Harris	Webb	Maverick	Tarrant	Brazoria	Other Counties	Total
1	Farm Products	192,338	0	1,040	17,903	0	952,944	**1,164,225**
8	Forest Products	0	0	0	0	0	2,575	**2,575**
9	Fresh Fish or Marine Products	0	0	0	0	0	0	**0**
10	Metallic Ores	19,810	0	0	0	0	13,225	**33,035**
11	Coal	0	0	0	0	0	0	**0**
13	Petroleum Prod, Natural Gas	0	0	0	0	0	259,345	**259,345**
14	Nonmetallic Minerals	32,365	3,600	0	6,265	0	694,274	**736,504**
19	Ordnance or Accessories	0	0	0	0	0	13,865	**13,865**
20	Food or Kindred Products	323,170	306,975	3,118,430	294,015	209,940	1,226,785	**5,479,315**
22	Textile Mill Products	1,000	3,600	0	760	0	1,200	**6,560**
23	Apparel or Related Products	38,550	4,320	0	4,760	0	548,525	**596,155**
24	Logs, Lumber, Wood Prod.	52,205	3,110	0	11,910	0	489,490	**556,715**
25	Furniture or Fixtures	1,880	7,080	240	53,000	0	36,880	**99,080**
26	Pulp, Paper or Allied Products	49,985	21,275	485	76,270	0	1,674,260	**1,822,275**
27	Printed Matter	0	0	0	1,480	0	5,600	**7,080**
28	Chemicals or Allied Products	11,832,605	240,170	170,480	531,195	4,096,600	12,618,300	**29,489,350**
29	Petroleum or Coal Products	2,224,690	0	4,770	92,665	135,695	3,692,085	**6,149,905**
30	Rubber or Misc Plastics	58,040	105,400	5,320	46,040	0	220,630	**435,430**
31	Leather or Leather Products	0	0	0	0	0	0	**0**
32	Clay, Concrete, Glass or Stone	170,575	295,590	23,665	24,830	450	691,800	**1,206,910**
33	Primary Metal Products	359,775	595,525	277,150	3,245	0	1,165,110	**2,400,805**
34	Fabricated Metal Products	16,555	34,825	1,400	20,480	0	49,785	**123,045**
35	Machinery	37,857	88,240	28,760	31,920	0	101,226	**288,003**
36	Electrical Equipment	15,215	200,185	21,350	16,920	0	67,465	**321,135**
37	Transportation Equipment	84,085	2,952,820	1,067,599	579,601	2,520	1,189,146	**5,875,771**
38	Instrum, Photo Equip, Optical Eq	25,860	20,240	0	1,400	14,960	5,200	**67,660**
39	Misc Manufacturing Products	5,760	16,120	680	4,480	0	19,080	**46,120**

Code	Commodity Name	Harris	Webb	Maverick	Tarrant	Brazoria	Other Counties	Total
40	Waste or Scrap Materials Not Identified by Producing Industry	40,230	19,155	5,525	107,775	1,880	683,320	**857,885**
41					840	0	82,687	**332,447**
42	Shipping Containers	880	920	165	0	0	4,140	**6,105**
43	Mail or Contract Traffic	0	0	0	600	0	0	**600**
44	Freight Forwarder	20,360	7,320	0	230,680	0	18,400	**276,760**
45	Shipper Association or Similar Traffic	0	0	0	0	0	0	**0**
46	Misc Mixed Shipments	829,840	53,160	6,840	2,353,040	0	1,963,225	**5,206,105**
47	Small Package Freight Shipments	0			0			**0**
48								
	Total	**16,440,610**			**4,558,994**			**63,925,990**

Table D – 7: Rail Outbound Tons by Geography and Destination (Outside of Texas), 2022

Code	Commodity Name	Illinois	California	Louisiana	Other States	Total
1	Farm Products	9,380	864,367	6,410	284,068	1,164,225
8	Forest Products	0	0	0	2,575	2,575
9	Fresh Fish or Marine Products	0	0	0	0	0
10	Metallic Ores	490	5,995	980	25,570	33,035
11	Coal	0	0	0	0	0
13	Petroleum Prod, Natural Gas	0	0	196,735	62,610	259,345
14	Nonmetallic Minerals	5,680	18,265	536,960	175,599	736,504
19	Ordnance or Accessories	0	800	0	13,065	13,865
20	Food or Kindred Products	906,155	1,071,950	532,510	2,968,700	5,479,315
22	Textile Mill Products	4,640	720	0	1,200	6,560
23	Apparel or Related Products	263,320	227,720	0	105,115	596,155
24	Logs, Lumber, Wood Prod.	65,900	175,665	7,795	307,355	556,715
25	Furniture or Fixtures	48,080	37,800	0	13,200	99,080
26	Pulp, Paper or Allied Products	237,090	449,225	26,535	1,109,425	1,822,275
27	Printed Matter	1,480	0	0	5,600	7,080
28	Chemicals or Allied Products	9,538,270	2,574,752	7,331,770	10,044,558	29,489,350
29	Petroleum or Coal Products	941,260	755,370	813,685	3,639,590	6,149,905
30	Rubber or Misc Plastics	170,575	122,200	410	142,245	435,430
31	Leather or Leather Products	0	0	0	0	0
32	Clay, Concrete, Glass or Stone	146,905	329,425	80,360	650,220	1,206,910
33	Primary Metal Products	173,615	378,515	275,880	1,572,795	2,400,805
34	Fabricated Metal Products	39,980	43,150	0	39,915	123,045
35	Machinery	70,937	62,440	0	154,626	288,003
36	Electrical Equipment	142,605	79,360	2,075	97,095	321,135
37	Transportation Equipment	2,625,624	559,598	704,451	1,986,098	5,875,771
38	Instrum, Photo Equip, Optical Eq	54,380	8,680	0	4,600	67,660
39	Misc Manufacturing Products	14,400	23,440	0	8,280	46,120

Code	Commodity Name	Illinois	California	Louisiana	Other States	Total
	Waste or Scrap Materials Not Identified by Producing Industry	89,045	96,585	137,155	535,100	857,885
	Misc Freight Shipments	143,840	19,571	0	169,036	332,447
	Shipping Containers	920	5,185	0	0	6,105
	Mail or Contract Traffic	0	600	0	0	600
	Freight Forwarder	87,000	120,520	0	69,240	276,760
	Shipper Association or Similar Traffic	0	0	0	0	0
	Misc Mixed Shipments	1,014,440	3,080,200	7,120	1,104,345	5,206,105
47	Small Package Freight Shipments	0	0	0	0	0
48	Waste Hazardous Materials or Waste Hazardous Substances	12,495	5	425	52,300	65,225
	Total	**16,808,506**	**11,112,103**	**10,661,256**	**25,344,125**	**63,925,990**

Table D – 8: Rail Inbound Tons by Geography and Origin (Outside of Texas), 2022

Code	Commodity Name	Wyoming	Illinois	Oklahoma	Iowa	Other States	Total
1	Farm Products	3,810	7,093,816	1,464,927	3,659,626	15,779,579	**28,001,758**
8	Forest Products	0	0	0	0	520	**520**
9	Fresh Fish or Marine Products	0	0	0	0	920	**920**
10	Metallic Ores	0	1,395	0	0	131,127	**132,522**
11	Coal	39,971,912	0	2,910	0	1,270,572	**41,245,394**
13	Petroleum Prod, Natural Gas	0	9,105	0	0	1,093,581	**1,102,686**
14	Nonmetallic Minerals	50,115	1,178,728	10,799,812	181,076	4,575,934	**16,785,665**
19	Ordnance or Accessories	0	3,320	0	0	7,536	**10,856**
20	Food or Kindred Products	6,785	2,397,027	49,865	5,436,089	10,861,355	**18,751,121**
22	Textile Mill Products	0	8,120	0	0	4,480	**12,600**
23	Apparel or Related Products	0	136,760	0	0	301,760	**438,520**
24	Logs, Lumber, Wood Prod.	1,190	87,815	2,955	0	3,037,560	**3,129,520**
25	Furniture or Fixtures	0	54,520	0	0	183,480	**238,000**
26	Pulp, Paper or Allied Products	0	159,070	107,180	630	1,648,175	**1,915,055**
27	Printed Matter	0	7,280	0	0	15,840	**23,120**
28	Chemicals or Allied Products	1,669,661	1,021,455	480,375	2,407,347	14,952,100	**20,530,938**
29	Petroleum or Coal Products	67,773	1,087,645	537,555	67,525	7,513,682	**9,274,180**
30	Rubber or Misc Plastics	0	158,560	0	0	474,040	**632,600**
31	Leather or Leather Products	0	0	0	0	520	**520**
32	Clay, Concrete, Glass or Stone	281,895	147,060	47,140	3,470	2,334,646	**2,814,211**
33	Primary Metal Products	0	136,360	9,745	77,390	3,998,833	**4,222,328**
34	Fabricated Metal Products	0	17,960	0	0	20,615	**38,575**
35	Machinery	0	5,945	0	0	106,310	**112,255**
36	Electrical Equipment	0	18,110	0	0	114,915	**133,025**
37	Transportation Equipment	2,790	1,736,795	22,324	12,069	1,661,161	**3,435,139**

Code	Commodity Name	Wyoming	Illinois	Oklahoma	Iowa	Other States	Total
38	Instrum, Photo Equip, Optical Eq	0	4,440	0	0	22,200	**26,640**
39	Misc Manufacturing Products	0	6,600	0	0	32,550	**39,150**
40	Waste or Scrap Materials Not Identified by Producing Industry	8,920	314,714	140,035	31,080	2,271,678	**2,766,427**
41	Misc Freight Shipments	0	95,560	5,740	0	256,419	**357,719**
42	Shipping Containers	0	1,040	0	0	0	**1,040**
43	Mail or Contract Traffic	0	0	0	0	1,600	**1,600**
44	Freight Forwarder	0	150,440	0	0	130,840	**281,280**
45	Shipper Association or Similar Traffic	0	0	0	0	0	**0**
46	Misc Mixed Shipments	0	1,881,600	0	0	6,426,240	**8,307,840**
47	Small Package Freight Shipments	0	0	0	0	0	**0**
48	Waste Hazardous Materials or Waste Hazardous Substances	0	11,465	0	0	158,410	**169,875**
	Total	**42,064,851**	**17,932,705**	**13,670,563**	**11,876,302**	**79,389,178**	**164,933,599**

Table D – 9: Rail Inbound Tons by Geography and Texas County Destination, 2022

Code	Commodity Name	Harris	Tarrant	Dallas	Maverick	Fort Bend	Other Counties	Total
1	Farm Products	4,890,707	670,368	115,380	4,337,720	1,695	17,985,888	**28,001,758**
8	Forest Products	0	0	520	0	0	0	**520**
9	Fresh Fish or Marine Products	0	920	0	0	0	0	**920**
10	Metallic Ores	2,700	0	0	13,040	0	116,782	**132,522**
11	Coal	985,974	0	0	485	8,152,702	32,106,233	**41,245,394**
13	Petroleum Prod, Natural Gas	0	0	0	0	0	1,102,686	**1,102,686**
14	Nonmetallic Minerals	976,775	1,312,597	2,585,340	92,915	240,654	11,577,384	**16,785,665**
19	Ordnance or Accessories	2,520	0	800	0	0	7,536	**10,856**
20	Food or Kindred Products	957,208	1,536,050	1,475,940	2,392,778	76,655	12,312,490	**18,751,121**
22	Textile Mill Products	0	2,320	3,640	960	0	5,680	**12,600**
23	Apparel or Related Products	113,000	21,920	213,480	840	0	89,280	**438,520**
24	Logs, Lumber, Wood Prod.	198,190	318,180	710,320	22,450	65,195	1,815,185	**3,129,520**
25	Furniture or Fixtures	32,120	83,160	34,240	0	0	88,480	**238,000**
26	Pulp, Paper or Allied Products	34,755	319,375	413,465	90,460	2,240	1,054,760	**1,915,055**
27	Printed Matter	10,280	7,080	1,440	0	0	4,320	**23,120**
28	Chemicals or Allied Products	4,964,229	2,340,657	732,370	735,250	21,910	11,736,522	**20,530,938**
29	Petroleum or Coal Products	2,476,050	273,305	218,455	265,896	0	6,040,474	**9,274,180**
30	Rubber or Misc Plastics	68,800	113,000	312,920	2,680	12,680	122,520	**632,600**
31	Leather or Leather Products	520	0	0	0	0	0	**520**
32	Clay, Concrete, Glass or Stone	309,895	92,706	672,395	179,850	2,710	1,556,655	**2,814,211**
33	Primary Metal Products	1,460,603	115,905	216,730	163,925	0	2,265,165	**4,222,328**
34	Fabricated Metal Products	9,395	6,765	10,880	0	360	11,175	**38,575**
35	Machinery	6,235	15,760	21,680	0	840	67,740	**112,255**
36	Electrical Equipment	10,960	19,480	44,060	0	0	58,525	**133,025**
37	Transportation Equipment	583,747	550,554	413,440	172,658	158,970	1,555,770	**3,435,139**

Code	Commodity Name	Harris	Tarrant	Dallas	Maverick	Fort Bend	Other Counties	Total
38	Instrum, Photo Equip, Optical Eq	8,440	2,200	9,520	0	0	6,480	**26,640**
39								**39,150**
40	Waste or Scrap Materials Not Identified by Producing Industry	233,721	8,425	11,095	483,960	840	2,028,386	
					1,880	0	332,839	**357,719**
	Shipping Containers	0	1,040	0	0	0	0	**1,040**
	Mail or Contract Traffic	0	1,600	0	0	0	0	**1,600**
	Freight Forwarder	16,160	259,600	3,880	0	0	1,640	**281,280**
	Shipper Association or Similar Traffic	0	0	0	0	0	0	**0**
	Misc Mixed Shipments	874,160	4,245,200	2,071,760	0	9,560	1,107,160	**8,307,840**
47	Small Package Freight Shipments	0	0	0	0	0	0	**0**
	Waste Hazardous Materials or Waste Hazardous Substances	20,360	47,045	0	15,130	0	87,340	**169,875**
	Total	**19,261,824**	**12,379,372**	**10,315,390**	**8,975,277**	**8,750,251**	**105,251,485**	**164,933,599**

Table D – 10: FHWA FAF Rail Tonnage (Thousand Tons) by SCTG Code, 2022 and 2050

Commodity Name	Inbound Movements				Outbound Movements				Intrastate Movements			
	2022	2050	Total Growth	Average Annual Growth Rate	2022	2050	Total Growth	Average Annual Growth Rate	2022	2050	Total Growth	Average Annual Growth Rate
Live animals/fish	0.0	0.0	+137%	+1.1%	-	-	-	-	0.0	-	-	-100.0%
Cereal grains	19,890.7	24,647.0	+124%	+0.8%	137.8	149.6	+109%	+0.3%	4,738.3	9,043.5	+191%	+2.3%
Other ag prods.	5,318.5	6,012.6	+113%	+0.4%	711.2	1,039.3	+146%	+1.4%	1,672.8	2,238.8	+134%	+1.0%
Animal feed	8,709.0	21,118.2	+242%	+3.2%	35.8	151.0	+422%	+5.3%	46.9	798.9	+1,702%	+10.7%
Meat/seafood	12.7	123.3	+975%	+8.5%	153.2	159.9	+104%	+0.2%	6.1	74.2	+1,219%	+9.3%
Milled grain prods.	691.0	1,055.3	+153%	+1.5%	464.7	1,267.8	+273%	+3.6%	5.1	9.7	+188%	+2.3%
Other foodstuffs	3,698.7	9,480.9	+256%	+3.4%	204.3	897.4	+439%	+5.4%	331.5	985.1	+297%	+4.0%
Alcoholic beverages	101.6	218.1	+215%	+2.8%	3,859.2	3,957.5	+103%	+0.1%	30.3	346.8	+1,146%	+9.1%
Building stone	0.4	0.0	+6%	-9.5%	1.9	0.6	+34%	-3.8%	0.4	1.9	+452%	+5.5%
Natural sands	10,700.9	16,192.6	+151%	+1.5%	26.9	1,136.5	+4,220%	+14.3%	354.0	511.8	+145%	+1.3%
Gravel	3,603.5	4,056.0	+113%	+0.4%	32.0	76.2	+238%	+3.1%	2,653.7	4,476.0	+169%	+1.9%
Nonmetallic minerals	1,039.7	979.4	+94%	-0.2%	144.5	483.2	+334%	+4.4%	583.0	934.8	+160%	+1.7%
Metallic ores	177.0	1,914.7	+1,082%	+8.9%	65.4	40.6	+62%	-1.7%	59.1	155.2	+263%	+3.5%
Coal	43,073.5	5,078.4	+12%	-7.4%	60.0	-	-	-100.0%	84.3	2,892.8	+3,430%	+13.5%
Crude petroleum	3,382.0	924.4	+27%	-4.5%	353.9	3.4	+1%	-15.3%	125.7	105.4	+84%	-0.6%
Gasoline	3,739.8	2,817.1	+75%	-1.0%	594.5	648.6	+109%	+0.3%	5,392.1	8,218.1	+152%	+1.5%
Fuel oils	5,036.9	4,003.0	+79%	-0.8%	2,468.9	3,099.2	+126%	+0.8%	7,368.7	9,504.9	+129%	+0.9%
Natural gas and other fossil products	8,316.7	8,581.6	+103%	+0.1%	3,199.9	4,632.0	+145%	+1.3%	71,409.3	25,550.6	+36%	-3.6%
Basic chemicals	9,219.0	33,251.1	+361%	+4.7%	6,656.1	19,245.4	+289%	+3.9%	5,353.6	20,048.5	+374%	+4.8%
Pharmaceuticals	22.7	60.0	+264%	+3.5%	104.7	43.8	+42%	-3.1%	43.6	697.1	+1,600%	+10.4%
Fertilizers	988.9	2,206.8	+223%	+2.9%	119.3	246.0	+206%	+2.6%	333.3	759.9	+228%	+3.0%
Chemical prods.	509.6	1,187.6	+233%	+3.1%	558.2	1,074.3	+192%	+2.4%	848.1	2,067.6	+244%	+3.2%
Plastics/ rubber	2,811.7	9,368.2	+333%	+4.4%	6,950.8	18,078.0	+260%	+3.5%	9,169.5	25,042.9	+273%	+3.7%

Commodity Name	Inbound Movements				Outbound Movements				Intrastate Movements			
	2022	2050	Total Growth	Average Annual Growth Rate	2022	2050	Total Growth	Average Annual Growth Rate	2022	2050	Total Growth	Average Annual Growth Rate
Logs	7.3	4.4	+61%	-1.8%	284.4	326.3	+115%	+0.5%	45.3	99.0	+219%	+2.8%
Wood prods.	1,899.2	2,366.9	+125%	+0.8%	129.7	839.3	+647%	+6.9%	104.9	256.6	+245%	+3.2%
Newsprint/paper	1,413.0	3,171.9	+224%	+2.9%	584.3	878.0	+150%	+1.5%	155.2	536.0	+346%	+4.5%
Paper articles	37.3	65.0	+174%	+2.0%	24.7	24.6	+100%	-0.0%	14.2	31.0	+217%	+2.8%
Printed prods.	6.8	3.3	+48%	-2.6%	3.8	5.1	+137%	+1.1%	1.2	2.1	+174%	+2.0%
Textiles/leather	18.2	181.3	+997%	+8.6%	23.5	112.1	+477%	+5.7%	1.2	3.1	+260%	+3.5%
Nonmetal min. prods.	2,090.4	2,597.1	+124%	+0.8%	1,244.3	659.0	+53%	-2.2%	3,485.6	4,078.5	+117%	+0.6%
Base metals	1,494.5	2,267.0	+152%	+1.5%	1,918.1	1,234.9	+64%	-1.6%	1,550.9	2,317.9	+149%	+1.4%
Articles-base metal	547.1	1,532.8	+280%	+3.7%	480.3	1,080.9	+225%	+2.9%	897.9	2,115.5	+236%	+3.1%
Machinery	413.7	1,051.3	+254%	+3.4%	868.8	2,276.3	+262%	+3.5%	152.0	832.9	+548%	+6.3%
Electronics	215.6	555.5	+258%	+3.4%	294.1	644.0	+219%	+2.8%	91.9	279.2	+304%	+4.0%
Motorized vehicles	835.4	1,286.2	+154%	+1.6%	4,359.2	14,496.9	+333%	+4.4%	351.5	1,005.2	+286%	+3.8%
Transport equip.	249.5	54.2	+22%	-5.3%	106.7	95.1	+89%	-0.4%	220.1	334.5	+152%	+1.5%
Precision instruments	19.7	10.6	+54%	-2.2%	15.5	42.4	+274%	+3.7%	1.3	1.2	+93%	-0.3%
Furniture	14.1	61.1	+434%	+5.4%	25.4	70.8	+278%	+3.7%	7.1	121.0	+1,705%	+10.7%
Misc. mfg. prods.	31.9	61.2	+192%	+2.4%	15.7	32.8	+208%	+2.7%	25.8	77.4	+300%	+4.0%
Waste/scrap	1,011.8	1,687.4	+167%	+1.8%	564.0	625.2	+111%	+0.4%	2,868.2	3,901.3	+136%	+1.1%
Mixed freight	56.0	137.7	+246%	+3.3%	1.6	221.6	+13,469%	+19.1%	0.5	203.4	+44,596%	+24.3%
Tobacco prods.	-	-	-	-	-	0.0	-	-	-	-	-	-
Total	**141,406.0**	**170,371.1**	**+120%**	**+0.7%**	**37,847.4**	**80,095.6**	**+212%**	**+2.7%**	**120,584.2**	**130,660.3**	**+108%**	**+0.3%**